CONSTRUCTION NEWS

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RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

ARIZONA, MEXICO & GULF OF CALIFORNIA R. R.—This company has been formed with a capital stock of $13,500,000 gold, for the purpose of building this line, and the organization is to be followed by an application to the Mexican Government for a concession to cover that portion of the proposed road through Mexico, and the establishment of extensive port facilities at Port Lobos, it is announced. The road will be about 450 miles long, and is being promoted by the same financial interests that compose the Development Company of America, 11 Pine St., New York. The railroad will connect Tucson, Ariz., with Port Lobos, Mex., on the Gulf of California, and will be about 200 miles long. Benj. P. Cheney, of Boston, is named as Pres.

BELLINGHAM EASTERN LOGGING & RY. CO.—Articles of incorporation of this company have been filed with County Auditor at Bellingham with capital stock of $100,000. D. J. Cain, T. R. Waters, S. T. Benness and F. W. Boness, Jr., are the incorporators, with headquarters at Bellingham. A short logging road may be built and a long road may be built, with an outlet on Bellingham Bay.

CARLTON & COAST.—We are officially advised that the engineering corps is still in the field and that no construction contracts have been let yet. Capital has been secured and right-of-way obtained. This railroad will extend from Carlton to Fairdale, 15 miles. Chas. E. Ladd is Pres., Portland, Ore.; W. B. Dennis is Vice-Pres. and Mgr., Carlton, Ore. Noted on March 31.

CHERRYVALE, OKLAHOMA & TEXAS.—We are officially informed that the CONTINENTAL CONSTRUCTION CO., Caney, Kan., which has the contract for grading the first 50 miles of railway, has commenced work. As officially noted on June 3, '09, "this line, when built, will be 235 miles in length, running from Cherryvale, Kan., to Geary, Okla., via Pawhuska, Blackburn, Perry and Guthrie. A branch line will run southwest to Fayetteville, Ark., a distance of 150 miles. The project has been financed and right-of-way partly secured. Surveys for first 50 miles are made." B. J. Dalton, Lawrence, Kan., is Ch. Engr. S. M. Porter, Pres., Caney, Kan.

COAHUILA, CHIHUAHUA & NORTHWESTERN.—See Mexico.

CONNELLSVILLE & STATE LINE.—The charter granted in Pennsylvania to the Connellsville & State Line R. R. Co. is for the Western Maryland R. R. Co., which has secured this franchise for the construction of the Pennsylvania section of its Connellsville and Cumberland link of the new system.

The road will be 68.49 miles long from Connellsville, Pa., to one mile east of the boundary between Garrett and Allegany Counties, Maryland, extending through Fayette and Somerset Counties. The capital is $700,000. The Western Maryland Co. has opened offices at Connellsville in charge of J. J. Palmer, of Baltimore, and J. H. Charlton, of Christianburg, Va. The incorporators are W. A. Wilbur, of South Bethlehem, Pres.; G. S. Schmidt, York; C. H. Early, W. H. Ruppel, C. F. Uhl, Jr., John N. Snyder, Josiah Swank, C. W. Walker and F. W. Biesecker, of Connellsville. Noted on April 14, when it was stated that the contract for the construction of the extension from Cumberland, Md., to Connellsville, Pa., had been awarded to the CARTER CONSTRUCTION CO., of Pittsburg.

COOS BAY & OREGON CENTRAL.—C. F. Hendrickson, Sam Connell and J. H. Cole, of Portland, have filed articles of incorporation of the Coos Bay & Oregon Central R. R. Co. The capital stock named in the articles is $4,000,000 and the purpose of the corporation is to construct a railroad from Coos Bay, Ore., to Boise, Idaho. A line has been located from Coos Bay to Roseburg for the survey cost of which, it is reported, considerable money has been contributed by property owners in the country traversed. Satisfactory grades have been obtained.

EASTERN KENTUCKY.—An extension will be built, it is stated, from Webbville, Ky., to timber and coal lands in Breathitt County, 69 miles. Preliminary survey is under way. S. G. Bates is Vice-Pres. and Gen. Mgr., at Riverton, Ky.

FORT WORTH, MINERAL WELLS & WESTERN.—This company announces that contracts will be let soon for the construction of its proposed 60-mile railway to connect Fort Worth, North Fort Worth, Azle, Springtown, Agnes, Poolville, Adell, Authon, Blue Springs and Mineral Wells. Motive power will be both steam and electricity. J. S. Hanford, Beaumont, is Pres. Noted on Oct. 7, '09.

FREDERICK R. R.—Company has authorized a bond issue to provide for the proposed extension from Thurmont to Emmitsburg, Md., and Gettysburg, Pa., a distance of about 18 miles. W. S. Taylor is Vice-Pres. and Gen. Mgr., Frederick, Md.

GEORGIA.—The Manufacturers' Association of Rome, Ga., is supporting a movement to build a railroad from Kingston to Canton, Ga., 30 miles, preliminary to establishing a line from Rome to Gainesville. The distance from Kingston to Canton is 30 miles, and the road would tap a territory rich in hardwood timber, marble and other minerals, that at present is untouched. A right-of-way between the two places named can be secured without cost, and it is estimated that stock subscriptions of $200,000 would finance the road.

LARAMIE, HAHN'S PEAK & PACIFIC.—This railway, now in operation from Laramie to Fox Park, Wyo., and contracted for a greater part of the distance to Walden, Colo., is to be extended beyond that city. The announcement is made of the appointment of R. D. Stewart, of Laramie, Wyo., as Chief Engineer and Superintendent and J. J. Argo, of Laramie, as Locating Engineer, the latter to locate the extension from Walden into Routt County, Colo.

MEXICO.—L. J. Keena, U. S. Consul at Chihuahua, states that a bill will be presented during the coming session of the Chihuahua Legislature for ratification granting a subsidy of $200,000 gold to the Coahuila, Chihuahua & Northwestern R. R., to be used in the construction of a 156-mile railway between the city of Chihuahua and the state boundary line of Chihuahua and Coahuila. That part of the road in the state of Coahuila has already been subsidized by that state to the amount of $2,500 per kilometer (0.62 miles). Monclova will be the eastern and the city of Chihuahua the western terminus of the line. The average cost of this road is estimated at $12,500 per kilometer. Construction work will be started from the Monclova end of the road in order to open up as rapidly as possible the coal fields which have been discovered some 75 miles west of that city. It is reported that the Monterey Steel Co. has contracted for the entire production of these coal fields. This line will be of great benefit to the state of Chihuahua, in the eastern part of which the road will reach some iron and low-grade mineral districts, and will also pass close to the Laguna de Jaco, around which lake great deposits of salt have been found. The country which will be traversed in the state of Chihuahua is mostly fertile, in which the water needed for irrigation, for agriculture, and cattle raising can be found at small depths. Besides, the road will bring the products of the states of Coahuila and Nuevo Leon to the state and city of Chihuahua at greatly reduced cost. The saving which should be effected by this shorter haul on such commodities as coal, iron and steel will be of material advantage to industries located in the state of Chihuahua. As noted on Dec. 9, '09, we were officially advised that contracts were to be let for building the proposed extensions from Monclova to San Blas, Jaco, Julimes and Chihuahua, 360 miles. Preliminary surveys have been made. T. S. Abbott is Ch. Engr., Saltillo, state of Coahuila. Also noted on Nov. 4.

MEXICO.—James G. Bailey, U. S. Chargé d'Affaires, sends from Mexico City a published announcement that a concession has been granted to William Prim Wood to build a railroad 1,000 kilometers (620 miles) from Santa Lucretia, at the junction of the Veracruz & Pacific and the Tehuantepec National Railways, to Yucatan, where it will connect with the United Railways. The subsidy is about $7,500 gold per kilometer, and the line will give Merida a rail connection with Mexico City and other points on the American continent.

Alberta Lagorreta, of Queretaro, State of Queretaro, Mex., has obtained a concession from the Federal Government to build a 50-mile line between Mexico City and Queretaro City.

Announcement is made that the Madero interests, represented by Gustavo Madero, of Monterey, Mex., and the Franco-Espanol Bank of Paris, France, represented by C. E. Carboneau, of Paris, have entered into a contract with Governor Francisco de P. Zarate, acting on behalf of the State of Zacatecas, for the construction of the Zacatecas & Orient R. R. Under the terms of the concession granted, the interest on the bonds for 20 years at 5% per annum is guaranteed by the State of Zacatecas. The new line will be about 250 miles long. It will run from Camacho Station, on the line of the Mexican Central, to the mining camp of Mazapil, with a branch from Cedros to the mining camp of Bonanza, all in the State of Zacatecas. The survey has been made and construction will be started about June 1.

MIDDLE ISLAND R. R.—We are officially advised that bonds have been voted for building this line. Contracts have not yet been awarded. Surveys are not made; right-of-way is partly obtained. The railroad will be 64 miles long, extending from Sisterville to Clarksburg, via Middlebourne, W. Va. T. Moore Jackson is Pres. and Ch. Engr., Clarksburg, W. Va.

MOUNTAIN, VALLEY & PLAINS.—Engineers of the Mountain, Valley & Plains R. R., to be built from Guthrie, Okla., to Cimarron, N. Mex., state that trains will be running between those two points by Jan. 1, 1911. The final survey will be completed soon. H. S. Wannamaker is Gen. Mgr.; J. H. Conlen is Ch. Engr., Dalhart, Tex. Noted on Jan. 27.

NEUCES RIVER VALLEY R. R.—We are officially advised that contracts will be let within 60 days for the building of this railway, from Beeville, Tex., west via Oakville, Tilden, Cotulla and Carrizo Springs to Eagle Pass, 175 miles. Surveys are made, capital obtained, and right-of-way secured. Lee Frisby is Gen. Mgr., Beeville, Tex.

OREGON TRUNK RY.—Contract has been awarded for building 125 miles of the Oregon Trunk Line, the contractor being H. C. HENRY, of Seattle, Wash. Work is to begin immediately, and covers the lines from Madras, Ore., to the Klamath Indian reservation. The estimated value of this contract is $3,500,000. When the line is completed, as well as the 109 miles that the PORTER BROS. are building, the company will have 234 miles of track. Noted fully on April 21.

PHILADELPHIA, BETHLEHEM & NEW ENGLAND.—Chartered in Pennsylvania to construct and operate a 24-mile railroad in Bucks and Northampton Counties, Pa. The company's line will run from Durham Furnace to Nazereth. The capital is $250,000, and the incorporators are Thomas C. Cole, South Bethlehem, Pres.; Charles M. Schwab, Archibald Johnson, H. S. Snyder, B. H. Jones, F. A. Shick and E. G. Grace, of South Bethlehem, and J. H. Ward, of New York.

SOUTHERN PACIFIC R. R. (OF MEXICO).—We are officially advised that the GRANT BROS. CONSTRUCTION CO., Security Bldg., Los Angeles, Cal., has resumed work on the West Coast line of the Southern Pacific R. R. of Mexico, south of the Santiago River.

WESTERN MARYLAND.—See Connellsville & State Line R. R.

ZACATECAS & ORIENT R. R.—See Mexico.

ELECTRIC RAILWAYS.

WINTHROP, MASS.—We are officially advised that right-of-way and capital have been secured by the Point Shirley St. Ry. Co. for building a 1-mile line on Shirley St., Winthrop. Surveys are not yet made. Chas. L. Ridgway, of the Ridgway Construction Co., 79 Milk St., Boston, is interested. Noted on April 7.

BOSTON, MASS.—We are officially informed that "the Boston & Eastern Electric R. R. Co. is not ready to award any contracts for construction or equipment. The surveys have been made and we are now seeking an enabling act whereby we may build our Boston terminal, the road as a whole having been declared a public necessity by the Massachusetts Railroad Commissioners." This company is now seeking authority to allow it to build a tunnel under Boston Harbor. The plans call for a line from Beverly to Boston, 41 miles, for which the company plans to spend about $11,000,000. Arthur Sturges, 110 State St., Boston, is Engr.

ALTOONA, PA.—Bids will be received by the Johnstown & Altoona Ry. Co., 301 Suppes Bldg., Johnstown, until 10 a. m., May 30, for undertaking the work of grading the whole or part of the following: Earth, 167,000 cu. yds.; rock, 156,000 cu. yds.; extra fill, 113,000 cu. yds.; concrete culverts, 1,400 cu. yds.; reinforced-concrete bridge structures, 5,000 cu. yds. Plans, profiles and specifications will be ready for inspection after May 10. Herbert F. Pierce is Ch. Engr., Johnstown. Officially noted last week.

ELKTON, MD.—The Elkton, Fairhill & Oxford Electric Railway & Power Co. has obtained a charter in Maryland and will apply for one in Pennsylvania as soon as the Legislature meets. Capital stock, authorized, $60,000, which will be increased to $500,000. Power stations are to be located at Elkton, Md., and Oxford, Pa. No definite time has been set for starting work on this proposed 17-mile electric railway, which is to connect Elkton, Cherry Hill and Fairhill, Md., and Louisville and Oxford, Pa. The incorporators are John Lungren, of Lewisville, Pa.; Dr. C. P. Carrice, of Cherry Hill, Md.; George E. L. Hess and H. Eugene Mackie, of Fairhill, Md., and Hiester Hess, of Elkton, Md. Noted on April 21.

RICHMOND, VA.—The Richmond & Henrico Railway Co. will build an electric street railway, eight miles long. The BURTON CONSTRUCTION CO., Ninth and Broad Sts., Richmond, Va., has the contract. W. O. Burton is Pres.; T. S. Wilson, Vice-Pres.; H. D. Eichelberger, Secy. and Treas. L. Hankins is Engr.-in-Charge.

LYNCHBURG, VA.—The promoters of the proposed trolley line from Lynchburg northward through Amherst County and into Nelson County are active in their arrangements to finance the project. It is stated that preliminary surveys will be commenced in a short time, and it is generally expected that the line will start at the northern end of the James River Bridge and that it will touch Sweet Briar College, Amherst Courthouse, going in a northerly direction to the Nelson County line and probably into the Crabtree Valley. The incorporators of the proposed road, which will be known as the Lynchburg, Amherst & Northern Ry., are: H. L. Page, Pres.; J. T. Bonny, Secy.; H. C. Joyner, J. E. Bowman, C. A. Jubert, Stickley Tucker, W. Ward Hill, C. L. Scott and C. J. Campbell, of Amherst; Wallace A. Taylor, of Lynchburg; and W. E. Walker, of Sweetbriar.

GADSDEN, ALA.—H. A. Rogers, one of the promoters of the Noccalula Railway, Light & Power Co., has been granted a franchise to build a railway in Gadsden. This line will connect Gadsden, Alabama City, Attalla and Lookout Mountain top. Company will be incorporated with capital stock of $300,000.

CINCINNATI, OHIO.—We are officially advised that the Cincinnati, Dayton & Fort Wayne Ry. Co. has made surveys and has secured right-of-way for its proposed line which will run from Cincinnati to Dayton, Ohio; Fort Wayne, Ind.; Toledo, Ohio, and Jackson, Mich., 240 miles. Capital for construction is practically secured. No date has been set for letting contracts. Samuel F. George is Pres., and W. S. Smith is Ch. Engr., Dayton, Ohio. Noted on March 31.

CINCINNATI, OHIO.—It is announced that the Cincinnati, Portsmouth, Pomeroy & Pittsburg Elec. Ry. Co. will let construction contracts this summer. As officially noted on Nov. 11, '09, this company "has made surveys for its proposed line. This company proposes to construct an electric railway from Cincinnati to Pittsburg along the Ohio River Valley. Right-of-way is being secured, and at present more than 200 miles have been acquired out of a total of 466 miles. It is expected to obtain the rest of the right-of-way by January and to begin construction early next spring. A. E. Cox, 1502 Third Ave., Huntington, W. Va., is Pres.; C. P. Sanborn is Ch. Engr., at Huntington."

IRONWOOD, MICH.—F. Sullivan and associates have applied to the City Council for a franchise to build a railway in Ironwood, and also to build an extension to Bessemer.

DETROIT, MICH.—Officials of the Detroit, Lansing & Grand Rapids Ry. Co. announce that the company now has franchises, ratified by the people at the elections held April 4, from all townships needed through which to build its proposed railroad from Detroit to Grand Rapids, and the probabilities are that two lines will be built west from some point in Eagle Township, Clinton County, hereafter to be determined by the company's engineers, to Lowell, the north line running to Portland and from Portland directly west to Saranac, and from Saranac to Lowell and Grand Rapids, and the south line running west from this proposed junction point in Eagle Township to Lake Odessa, and from Lake Odessa to Lowell, all cars going west from Lowell to Grand Rapids over the same tracks. All franchises necessary for this proposed double route were approved at the various elections held in April. As noted on Nov. 25, '09, the company's headquarters are 706 Union Trust Bldg., Detroit, Mich.

GRAND FORKS, N. DAK.—The Grand Forks Transit Co. will place contracts soon for building three miles of track. Thomas D. Campbell is Gen. Mgr.

ABERDEEN, S. DAK.—We are officially advised that no specified time has been set for letting contracts by the Aberdeen St. Ry. Co. for the construction of four miles of track. Contracts will be let as soon as company receives favorable bids. Charles N. Herrald, Aberdeen, is Gen. Mgr. Noted on March 14.

KANSAS CITY, MO.—See item under Buildings.

MIDDLETOWN, MO.—The St. Louis, St. Charles & Northwestern Traction Co. has been formed at Middletown, for the purpose of building an electric line from St. Charles north through Troy, Olney, Marling, Middletown, Mount Carmel, Laddonia, Mexico, Parris and points northwest. The movement was started by a number of leading citizens of Middletown, and other places along the line were asked in the undertaking. Definite plans were adopted for the promotion and building of the line. The following officers were elected: C. B. Duncan, Olney, Mo., Pres.; R. E. Race, Mexico, Mo., Vice-Pres. and Mgr.; Dr. C. H. Rigg, Middletown, Second Vice-Pres.; Chris Pearson, Middletown, Secy.; R. M. Henderson, Middletown, Treas.; A. H. Hazleton, Middletown, Auditor; S. D. Stocks, Mexico, Attorney.

BELTON, TEX.—The property and franchises of the Belton & Temple Traction Co., operating an interurban line between Temple and Belton, with street car service in both places, have been sold at Belton by Receiver W. G. Haag, under orders issued from the Federal Court, the purchasers being H. E. Ahrens and Norman Little, of Reading, Pa., acting for the bondholders, and the price paid being $25,000, subject to existing liens and debts of the company.

OKLAHOMA CITY, OKLA.—The Oklahoma City & Suburban Ry. Co. has let contracts to JOHN ALLEY and to MATT CORRIGAN, both of Oklahoma City, Okla., to build lines in Oklahoma City; also from Britton, north to Edmund, and from a point between Oklahoma City and Greeley, south to Moore. Track has already been laid for distance of ten miles. W. A. Haller, 120½ West Grand Ave., Oklahoma City, is Pres. and Gen. Mgr. Noted on Dec. 9, '09.

PORT TOWNSEND, WASH.—Application for a charter has been made by the Olympic Power & Development Co., in Washington, to build an interurban railway to connect Port Townsend, Irondale and Hadlock. Capital stock, $250,000. Directors: W. B. Martin, James H. Causten and James A. Calyert, of Seattle; E. A. Sims, of Port Townsend, and Eric Molander, of Everett.

MARSHFIELD, ORE.—We are officially advised that the Coos Bay Rapid Transit Co. has awarded contract to the EMPIRE CONSTRUCTION CO., Marshfield, for building its line between Marshfield and North Bend, four miles. Surveys are made, capital obtained, and right-of-way secured. W. P. Evans is Pres., North Bend. L. W. Traver is Pur. Agent, Marshfield. Noted on April 7.

EUGENE, ORE.—Surveys are under way by the Lane County Asset Co., of Eugene, for its proposed 130-mile electric railway which will connect Eugene, Florence and Coos Bay. Work is scheduled to begin on the line about July 1. The Lane County Asset Co. has been organized for preliminary purposes only, and later it is proposed to organize a permanent company to build and operate the line. Capital stock authorized, $25,000; issued, $47,250. M. Svarverud is Pres.; Alton Hampton, Vice-Pres.; John Baird, Secy. and Treas. H. D. Forner is Ch. Engr., all of Eugene.

MARYSVILLE, CAL.—The Northern Electric Railway Co. has filed articles of incorporation for a branch line, 30 miles long, running from Marysville, through Luba City to Colusa. The new line is to be known as the Marysville and Colusa branch. The authorized capital of the branch is $1,500,000, of which $30,000 has been subscribed, as follows: C. H. Hammon, $28,000; Leon J. de Sabla, $500; Samuel Lilienthal, $500; George E. Springer, $500, and Herbert E. Furlong, $500. At Marysville the new road will connect with the Southern Pacific System main line. A. D. Schindler is Gen. Mgr. and Pur. Agent, Alaska Commercial Bldg., San Francisco; C. S. Compton is Consult. Engr., Chico, Cal.

OAKLAND, CAL.—Grading for the new electric suburban system, which is to connect Contra Costa County with Oakland, has been commenced at Walnut Creek. The road is known as the Oakland & Antioch Ry. The projectors plan to build it from Bay Point, through Concord, Walnut Creek, Lafayette, by way of the tunnel road, into Oakland. Fred Brooks, Engr.-in-Charge of the construction work, has announced that the road will be built as rapidly as possible, the plan being to complete the line this fall. Right-of-way has been secured from Concord to Oakland. The ultimate destination in Contra Costa County is Bay Point and Martinez. It is the intention to handle freight and passenger business. Company's headquarters are at 347 Grant Ave., San Francisco. Noted fully on Jan. 13.

TORONTO, ONT.—The Toronto & Eastern Ry. Co. probably will commence construction this summer on its proposed 100-mile electric railway to connect Toronto, Whitby, Oshawa, Brownsville, Lindsay, Port Hope, Uxbridge and Peterboro. Capital stock, $1,000,000. L. L. Murton, Oshawa, is the Solicitor.

NELSON, B. C.—The Nelson Electric Tramway Co. has awarded contract to L. G. BRANDT, Nelson, for the construction of five miles of new track. J. McPhee, Nelson, is Supt.

VANCOUVER, B. C.—The British Columbia Elec. Ry. Co., Ltd., has awarded the contract for building its 5-mile extension to Chilliwack to J. W. PIKE, of Vancouver.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

PORTLAND, ME.—The Portland Electric Co. has bought property at Bonny Eagle and Limington Falls. The development of water power will be by a dam at Boning Eagle, and power will be transmitted to this city for illuminating and manufacturing purposes. Estimated total cost, $1,000,000. James A. Fleet is Gen. Supt.

FORT McKINLEY (Portland post-office), ME.—Bids will be received by Capt. C. F. Humphrey, Jr., Q. M., U. S. A., Portland, until June 2 for constructing and remodeling an electric lighting system at Fort McKinley.

LEOMINSTER, MASS. — The ALLIS-CHALMERS CO., of Milwaukee, Wis., has been awarded contract by the Massachusetts Lighting Co., of Boston, Mass., for a barometric condenser and centrifugal pump for the plant of the Leominster Electric Light & Power Co., of Leominster, to furnish water to the turbo-generator set recently purchased from the Allis-Chalmers Co.

FISHERVILLE, MASS.—The Fisher Mfg. Co. is planning for the installation of an electric power plant to operate the mills of the company, replacing steam power. Albert W. Dimick is Supt.

BOSTON, MASS.—Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., June 4, for fire-protection and heating systems for extension of building No. 62 at the navy yard, Boston. Specifications are on file at the office of Engineering News, New York.

MIDDLETOWN, CONN.—We are officially advised that Henry Floy, Consulting Engr., 165 Broadway, New York, has awarded contracts as follows for the 3,000 HP. station to be erected at Middletown: To RAYMOND CONCRETE PILE CO., 90 West St., New York, for concrete piles and foundation work; to the WESTINGHOUSE MACHINE CO., 165 Broadway, New York, for two 500-KW. steam turbines, steam-driven exciters, Leblanc condensers and switchboard; to the PORCUPINE BOILER CO. for 250-HP. vertical boilers; to NILES-BEMENT-POND CO., 111 Broadway, New York, for overhead traveling crane; to F. E. IDELL, 50 Church St., for Cochrane feed-water heater and purifier.

PLAINFIELD, CONN.—The Lawton Mills Co. is planning to erect an electric light plant on the property recently purchased of Walter Kingsley.

BROOKLYN, N. Y.—Bids were received by Alfred E. Steers, Pres. Boro. Brooklyn, on May 4, for supplying all labor and materials of every kind and description and constructing the station building to be known as the power and gate houses and appurtenances complete for the Gowanus Flushing tunnel, situated at Douglass St. and the head of Gowanus Canal, Boro. Brooklyn: H. E. Fox, 81 East 125th St., New York, $35,857; R. E. Henningham, 1 Madison Ave., New York, $44,918; D. J. Ryan, Ft. 23d St., Brooklyn, $36,300; George Hilderbrand, 38 Park Row, New York, $38,976; Casey & O'Brien, Inc., 136 Liberty St., New York, $37,897; Kennen & Kerrigan, $38,740.

WATERFORD, N. Y.—Contract for the construction of the new power-house of Cluett, Peabody & Co., of Waterford, has been awarded to the TORRINGTON BLDG. CO., of Torrington, Conn.

MIDDLETOWN, N. Y.—The Orange County Lighting Co. has awarded contract to W. S. BARSTOW & CO., 50 Pine St., New York, for extensions to its power plant, which will double the generating capacity. The new building will be planned for an output of 1,000 KW. eventually, but the initial equipment will provide for 500 KW.

LONGPORT, N. J.—The Borough Council has passed an ordinance authorizing the construction of a municipal electric light plant here. A. H. Phillips is Mayor.

ARLINGTON, N. J.—W. S. BARSTOW & CO., 50 Pine St., New York, have been awarded contract for remodeling and enlarging the power plant of the Arlington Co., celluloid manufacturers, of Arlington. The plant when completed will have an output of 1,200 KW. Estimated cost, $80,000.

PHILADELPHIA, Pa.—Bids were received as follows by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., on May 7, for condensers, fire pump, feed-water heater and piping at navy-yard, Philadelphia: Norman A. Hill Engineering Co., 1503 Sansom St., Philadelphia, Pa., Item (2), $23,730; Camden Heating Co., Inc., 107 North Front St., Camden, N. J., Item (1) $24,939, (2) $28,382, (3) $24,989, (4) $28,882; John W. Danforth Co., 72 Ellicot St., Buffalo, N. Y., Item (1) $24,994, $22,837, $22,315, (2) $21,698; Walworth Mfg. Co., 132 Federal St., Boston, Mass., Item (2) $24,890; D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, Item (1) $23,170, $20,496, (2) $15,942, $15,421; W. K. Mitchell & Co., Inc., 2940 Ellsworth St., Philadelphia, Pa., Item (1) $23,170; Pittsburg Valve, Foundry & Construction Co., 2650 Railroad St., Pittsburg, Pa., Item (1) $24,800, (2) $25,800, (3) $25,125, (4) $26,125. R. C. Hollyday is Ch. Bureau.

WAYNESBORO, PA.—The Chambersburg, Greencastle & Waynesboro St. Ry. Co. has decided to purchase new equipment for its power plant here and substation at Pen Mar. Estimated cost, $40,000. The company has already awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 500-KW., 3-phase, 2,300-volt, 3,600-r. p. m. steam turbo-generator set and a type "C" condenser.

WILKES-BARRE, PA.—The directors of the Wilkes-Barre Gas & Electric Co. have decided to make extensions and improvements to the electric and gas plants and distributing systems, for which plans have been prepared. Work will commence immediately on some of the improvements. Estimated cost, $100,000.

WILMINGTON, DEL.—Charles Baird & Co. have awarded contract for equipping their plant for electrical operation to E. F. HIGGINS & CO.

BALTIMORE, MD.—Calvin W. Hendrick, Engr. Baltimore Sewage Comn., has awarded to the RAYMOND CONCRETE PILE CO., 90 West St., New York, and Chicago, contract for the concrete piles and foundations of the power-house to be erected for the filtration plant of the city at Back River. Ryan & Reilly are general contractors.

BALTIMORE, MD.—Plans are being prepared by the Superintendent of Lamps and Lighting for the installation of a municipal plant to furnish light, heat and power for the municipal buildings. It is proposed to install a plant of sufficient size to serve the court-house, city hall, the annex on North St. and Board of Health quarters in the old city hall building.

The United Railways & Electric Co. has awarded contract for the construction of an addition to its Pratt St. power-house to JOHN COWAN, of Baltimore, Md., at $5,500.

The Sisters of the Notre Dame, Charles St. Ave. extension, have awarded contract to CROOK, KRIES & CO., of Baltimore, for the installation of heating and ventilating apparatus, engine and generator. The entire power plant will be remodeled, the improvements including the installation of 250-HP. water-tube boiler, extension of cable mains from power-house to buildings in tunnels, etc. Estimated cost, $25,000. Charles L. Reeder, Equitable Bldg., Baltimore, is Consulting Engr.

BRISTOL, VA.—The Doe River Light & Power Co., which has contracted to supply the Bristol Gas & Electric Co. with electricity for manufacturing purposes, has awarded contract for the LOWE CONSTRUCTION CO., of Bristol, for the construction of a concrete dam across the Watauga River, in the Horseshoe Bend, to be 48 ft. wide and 300 ft. long. Estimated cost, $250,000.

RICHMOND, VA.—Contract for the erection of the overhead distributing system of the municipal electric light plant has been awarded by the Sub-committee of the Electric Committee to STORMS & CO., of Newark, N. J., at $55,000. The award is yet to be confirmed by the full committee. E. D. Richardson is Chn. Com.

CHARLESTON, S. C.—Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., June 11, for a water-front substation, Building No. 20, navy yard, Charleston. Specifications are on file at the office of Engineering News, New York.

STONE MOUNTAIN, GA.—The Yellow River Power Co. has been incorporated with $1,000,000 capital stock for the purpose of building a water-power electrical plant, to be located on the Yellow River, near Stone Mountain. J. B. McCrary, of Atlanta, Ga., and associates are the incorporators.

SYLVANIA, GA.—See item under Water Supply-Irrigation.

OPELIKA, ALA.—The Alabama Electric Light & Power Co. has submitted a proposition to the City Council offering to furnish electricity for lighting the streets of the city for a term of years. The city recently voted to issue $85,000 of bonds for the installation of a municipal electric light plant and water-works system. C. G. Abercrombie is Pres. Alabama Electric Light & Power Co.

LOUISVILLE, ALA.—The citizens are contemplating the construction of an electric light and water plant, and propose to sink artesian wells and pump the water into a reservoir to supply consumers in the city.

CLEVELAND, OHIO.—The Cleveland Ry. Co. is planning for the installation of four new boilers in its power plants. The boilers are to have a rating of 500 HP. each, and three of them will be placed in the Cedar Ave. power plant and one in the power plant at the viaduct. Estimated cost, $65,000.

TOLEDO, OHIO.—The ALLIS-CHALMERS CO., of Milwaukee, Wis., has been awarded contract by the Toledo Railways & Light Co. for the installation of a 6,400-KVA., 3-phase, 25-cycle, 4,000-volt, steam turbo-generator, which will operate in parallel with four Allis-Chalmers engines and two Curtis turbines forming the present equipment of the plant, Ford, Bacon & Davis, 115 Broadway, New York, are Engrs. for the Toledo Railways & Light Co.

PLYMOUTH, IND.—The School Board has decided to ask for bids for the installation of a new heating and ventilating plant, to cost about $15,000. The plant will be a hot-air system produced from a boiler-house built separate, with an 80-ft. brick smoke-stack.

ROCHESTER, MICH.—The citizens have voted to grant the Edison Illuminating Co., of Detroit, Mich., a franchise to supply electricity for lighting the village. Power for operating the system will be secured from Utica, seven miles distant.

LANSING, MICH.—The Board of Water-Works and Electric Light Commissioners has awarded to the ALLIS-CHALMERS CO., of Milwaukee, Wis., contract for a 1,000-KW., 2-phase, 2,300-volt, 60-cycle, 1,800-r. p. m. steam turbo-generator and a type "C" generator.

EVANSTON, ILL.—The Northwestern Gas Light & Coke Co. is planning the erection of a new plant to be located on a tract of land near the western outskirts of Evanston. Estimated cost, $300,000.

BLACK RIVER FALLS, WIS.—Contracts for the equipment for the municipal electric light plant has been awarded as follows: For power-house equipment, to the POWER ENGINEERING CO., of Minneapolis, Minn., at $4,000; for the installation of generator and switchboard to the FORT WAYNE ELECTRIC CO., of Fort Wayne, Ind., at $5,000.

ALLERTON, IOWA.—Bids will be received until May 17 by the Mayor and Town Board for furnishing material for an electric plant, as follows: One 80 BHP. producer gas engine for belt-driven A. C. generator, and one producer gas outfit complete, of sufficient size to drive engine above; one 50-KW. generator belt driven, switchboard, arc regulators, arc and tungsten lamps; poles; line material; installing above material, engine and producer excepted. L. G. Knapp & Co. are Engrs., Kansas City, Mo.

SHENANDOAH, IOWA.—The Peoples Gas Co. has awarded to the KERR-MURPHY MFG. CO. contract for a 75,000-cu. ft. holder and other improvements, at about $20,000.

MORTON, MINN.—The Wherland Electric Co., will receive bids about May 31 for the construction of an electric light plant. Estimated cost, $20,000. R. F. Wherland is Mgr.

ST. PAUL, MINN.—Plans are being prepared for Luther S. Cushing, of St. Paul, Minn., for improvements to the Endicott Arcade, in St. Paul, which include the installation of a power plant. Estimated cost, $35,000.

MINNEAPOLIS, MINN.—Contracts have been awarded by the Twin City Rapid Transit Co. to the GENERAL ELECTRIC CO., of Schenectady, N. Y., for one 14,000-KW. Curtis turbine and two 1,500-KW., 6-phase rotary converters for its power-house here.

The Pillsbury Flour Mills Co., of Minneapolis, has awarded contract to the WESTINGHOUSE MACHINE CO., of Pittsburg, Pa., for a 1,000-KW. high pressure turbo-generator unit for its new 5,000-KW. power plant. The turbine is supplied with steam at 175 lbs. pressure and exhausts into a vacuum of 28 to 29 ins., maintained by a Westinghouse-Leblanc barometric condenser. The new plant will furnish electricity to operate the several flour mills of the company here.

LINCOLN, KAN.—Bids will be received by the City Clerk until May 16 for equipment for the municipal electric light and water-plant, as follows: One 125-HP. engine direct connected to a 75-KW. generator and exciter; one 75-HP. horizontal high-speed engine, belt connection; one water heater; one feed pump; two 125-HP. high-pressure tubular boilers, piping, valves and fittings. Plans and specifications will be furnished on application to the City Clerk.

LA MOURE, N. DAK.—Bids will be received until June 8 by the Board County Commissioners for furnishing and installing a gasoline lighting plant of 150 light capacity for the new court-house. Separate bids will also be received on combination gas and electric light fixtures, complete, with globes. C. J. Alester is County Audr.

TYNDALL, S. DAK.—All bids for the proposed municipal electric light plant opened April 14 have been rejected. New bids will be asked. J. J. Manus is City Audr.

THERMOPOLIS, WYO.—The North Platte Irrigation Co. has awarded contract to the WAGNER ELECTRIC CO., of St. Louis, Mo., for the installation of an electric power plant about one mile below its [illegible] reservoir on the LaPrele, work on which will begin at once. The plant will have an output of about 6,000 HP. and will furnish electricity for pumping water from the river for domestic and commercial purposes.

GREEN FOREST, ARK.—A company has been organized by Benjamin Harris, F. R. Morrow, R. L. Jernigan, W. L. [illegible] and J. B. Reeves for the purpose of constructing an electric light plant and cold storage and ice plant. Estimated cost, $5,000.

HOUSTON, TEX.—The Railroad Commission on May 2 received plans for a 26-lever, 36-function electric interlocking plant by the Houston Belt & Terminal Ry. Co., which is to be constructed on Washington Ave., Houston. The new plant is to cost about $10,000 and expenses for construction will be borne by these three roads, also its maintenance. The commission will approve the plans.

FORT CROCKETT (Galveston post-office), TEX.—Bids are asked until 2 p. m., May 31, by Capt. P. Whitworth, Q. M., U. S. A., Fort Crockett, for the construction of an electric lighting system here.

ALPINE, TEX.—The Alpine Power Co. has applied to the City Council for a 50-year franchise to supply electricity for lamps and motors here.

FORT BAYARD, N. MEX.—Bids are asked until 11 a. m., May 28, by Lieut. Charles E. Winnia, Constructing Q. M., U. S. A., for power, refrigerating and electric lighting systems at Fort Bayard.

LAS VEGAS, N. MEX.—Plans and specifications are being prepared by John L. Zimmerman, of East Las Vegas, for the proposed power plant to be constructed on the Rio La Casa, in Mora County, by the Rio La Casa Power Co.

ESTANCIA, N. MEX.—The Western Construction Co. is making preparations for the construction of an electric plant with sufficient output to supply electricity for pumping water to irrigate 25,000 acres of land. Estimated cost, $498,000. The initial installation and transmission system will provide for 11,000 acres.

OAKLAND, CAL.—Contract for furnishing 15 miles of cable for fire alarm system in Oakland, has been awarded to the WATERBURY CO., 80 South St., New York.

PRICE, UTAH.—Contract for the construction of the municipal electric light plant has been awarded to the CAPITAL ELECTRIC CO., of Salt Lake City, Utah. Estimated cost of the plant, with power-house, $18,000. The contract calls for the installation of a 150-KW., 3-phase alternator, 150-HP. engine and wiring the town for lamps and motors. The street will be lighted by 100 tungsten lamps.

MIDVALE, UTAH.—The City Council has granted the Utah County Light & Power Co., of American Fork, Utah, a 50-year franchise to furnish electricity for lamps and motors within the city limits. The company will extend its line to provide electrical service in Draper, Crescent, Sandy and Midvale.

*TORONTO, ONT.—Bids will be received until noon, May 21, for furnishing and installing all heating and electrical apparatus, constructing tunnels, etc., required for the central heat, light and power plant at the University of Toronto. Griggs & Holbrooks, 3 South William St., New York, are Consulting Engrs.

BROCKVILLE, ONT.—On April 25 the citizens voted to issue $50,000 of bonds for the construction of an electric light plant and water-works system. C. T. Wilkinson is Mgr. Municipal Electric Light Plant.

SARNIA, ONT.—DRISCOL & McCAULEY, of Montpelier, Ind., have secured contract to lay 25 miles of 6 and 4-in. pipe line in the Sarnia gas fields in Ontario, Can.

WINNIPEG, MAN.—Bids are asked until noon, May 25, by P. E. Ryan, Secy., Comrs. of the Transcontinental Ry., Ottawa, Ont., for the equipment necessary for power-house in connection with the shops east of Winnipeg, including water-tube boilers, mechanical stokers, feed water-heaters, engines, generators, air compressors, pumps. Plans and specifications may be seen in the office of Gordon Grant, Ch. Engr., Comrs., Ottawa, and in the office of the District Engineer of the Commissioners at St. Boniface, Man.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

ANSONIA, CONN.—The U. S. WOOD PRESERVING CO., 165 Broadway, New York, was awarded contract on April 27 by the city for repairing the roadway of the Maple St. bridge.

MIDDLETOWN, CONN.—Contract for the new bridge which the New York, New Haven & Hartford R. R. Co. is to erect across the Connecticut River on the Air Line Division, between Middletown and Portland has been awarded to the AMERICAN BRIDGE CO., 30 Church St., New York. The structure, involving six spans, will be 1,200 ft. long. The draw span, which will be of the swinging type, will be 310 ft. long. Two sets of tracks will be provided for. The steel work will be erected on the present masonry. Estimated cost, $300,000.

WATERBURY, CONN.—Bids for the construction of a masonry arch bridge over steel ball brook will be received by the Board of Public Works, R. A. Cairns, Engr., until 8 p. m., May 17. Plans and specifications may be obtained at 9 Leavenworth St.

JERSEY CITY, N. J.—Contract for repairing the Hackensack River bridge on the Plank Road, has been awarded to J. I. HASS, of Jersey City, at $3,900.

JERSEY CITY, N. J.—The Erie R. R. Co. will construct a 2-track lift bridge over the Hackensack River.

GLENDON, PA.—Bids were received by the Northampton County Commissioners on April 29 for the erection of a steel highway bridge across the canal and Lehigh Valley R. R. at

Glendon. The bidders were: A. Buchanan, Chambersburg, $16,894; S. W. Chiles, South Bethlehem, $15,575; T. M. Lesher, Easton, $16,900. The contract was awarded to S. W. CHILES. The work will approximately consist of the construction of a steel highway bridge about 130 ft. long, 16.9 ft. center to center of trusses with a 6-ft. sidewalk on one side. The roadway and sidewalk will be reinforced concrete. There will be approximately 400 cu. yds. of masonry in the abutments and wing walls and 8,500 cu. yds. of fill to be made.

DANVILLE, PA.—Bids will be received until May 14 by Horace C. Blue, Clk. Bd. County Comrs., at Danville, for constructing four steel bridges with concrete floors.

WILMINGTON, DEL.—The Levy Court on May 3 opened bids for the erection of a concrete bridge at Noxentown mill dam. All the bids except the two lowest, Robert R. Morrison, $6,349, and Luten Bridge Co., of York, $6,730, were rejected. It was decided to not award the contract until it is learned what portion of the cost of the bridge the mill dam owners will pay.

LURAY, VA.—The New Market & Sperryville Turnpike Co. has awarded contract to SOUTHERN CONSTRUCTION CO., Birmingham, Ala., for the construction of a bridge over Pass Run.

ARVILLA, W. VA.—Bids will be received by the County Court of Pleasants County, at the Court-House at St. Marys, until 2 p. m., May 26, for the erection of the stone work and masonry for the proposed new wagon bridge to be built across Middle Island Creek, at Arvilla; also bids for taking down the old superstructure and the erection of the new superstructure for the proposed bridge, will be received at the same time and place. R. L. Griffin is Clk.

ROCK HILL, S. C.—The city proposes to construct a bridge over the Catawba River. Estimated cost, $9,000. C. F. Gordon is County Superv.

WRIGHTSVILLE, GA.—Wrightsville, Adrain & Lyons Ry. Co., W. F. Staten, Secy., Adrain, Ga., will erect two pile bridges, one 800 ft. and the other 1,000 ft. long.

LOUISVILLE, KY.—The Chesapeake & Ohio Ry., F. I. Cabell, Engr., Richmond, Va., is considering proposals for the erection of a railroad viaduct in East Louisville, length, 1,500 ft., height at Clay and 20th Sts., about 22 ft. Estimated cost, $100,000.

SALVERSVILLE, KY.—The CHAMPION BRIDGE CO., Wilmington, Ohio has been awarded contract for the erection of two steel bridges in Magoffin County.

*DAYTON, OHIO.—Bids will be received until noon, May 25, by William A. Budroe, Secy., Dept. Pub. Ser., for constructing a 7-arch reinforced concrete bridge, Melan system, over Great Miami River at Stewart St. Total length 653 ft., roadway 40 ft., sidewalks 9 ft. F. J. Cellarius is City Engr.

COLUMBUS, OHIO.—Contract for the superstructure of the Matheny bridge, over Alum Creek on the Johnstown Pike has been awarded by the County Commissioners of Franklin County to the McCLINTOCK-MARSHALL CONSTRUCTION CO., Pittsburg, at $6,400. The Capital Construction Co., Columbus, bid $7,300, and the Mt. Vernon Bridge Co., Mt. Vernon, $6,780. The contract for the approaches was awarded to J. T. WILLIAMS, at $3,199. Wilson & Yardley, Columbus, bid $3,479. Contract for the substructure was awarded to J. A. SWINGLE & CO., Columbus, at $6,917. Cooke, Grant & Fritz bid $8,899; Iliff Bros. $8,624; E. Walz, $8,470, and Kean, Sieber & Schwartz, $7,576.

DAYTON, OHIO.—Contract has been awarded to A. S. FOX, of Dayton, by the city for the construction of the Webster St. bridge, at $8,855. The bridge will be a hand-power lift bridge of Straus bascule type.

BELLEFONTAINE, OHIO.—The Board of County Commissioners has awarded contract to W. T. G. SNYDER for constructing a steel bridge on the South Detroit St. extension.

SPRINGFIELD, OHIO.—Contracts for constructing several bridges in the county were awarded by the County Commissioners on April 27, as follows: Bridge on Urbana Road, to PATRICK CAFFREY, at $5.90 per cu. yd.; bridge on the Clock and Miami Pike, to J. C. FULLER, at $6.35 per cu. yd.

COLUMBUS, IND.—The Commissioners of Bartholomew County have appropriated $18,000 for the construction of two new bridges. Bids will be asked soon.

ANDREWS, IND.—By order of the Indiana R. R. Commission the Wabash R. R. Co. will erect a new bridge across the Wabash River here. Estimated cost, $50,000.

ROSEVILLE, IND.—The Commissioners of Parke County, Rockville, are asking for bids for the construction of a bridge over Raccoon River at Roseville. Estimated cost, $10,000.

VINCENNES, IND.—The Commissioners of Knox County have ordered plans on which bids will be asked for the construction of three bridges near here.

JEFFERSONVILLE, IND.—The Commissioners of Clark County will receive bids until 11 a. m., June 6, for the construction of a new bridge over Logan Creek in Charlestown Township. Peter Nachand is Audr.

MARION, IND.—The County Commissioners have awarded contract to E. R. HOOVER & CO. for the construction of eleven arches.

PRINCETON, IND.—Contracts for 25 bridges have been let by the Gibson County Commissioners, 15 to be concrete arches and ten of steel, at a total cost of $27,026. The A. E. & W. CONSTRUCTION CO., of Evansville, obtained seven contracts for concrete bridges, at $3,973; FRANK DUNCAN, of Princeton, secured contracts for eight concrete and five steel bridges at $9,500, and the VINCENNES BRIDGE CO. contracts for five steel bridges at $3,553.

QUINCY, ILL.—L. H. Richardson, Deputy Surv., has completed plans for the steel bridge to span Bear Creek in Riverside Township on the bottom road leading northwest from Homan station. Bids on the construction of the bridge will be received until May 28. Estimated cost, $15,000. The bridge will have an 80-ft. span, with 16-ft. approaches on either side. The structure will rest on 30-in. steel tubes filled with concrete.

TAYLOR FALLS, MINN.—Bids will be received until June 3, at the office of the Village Council at Taylor Falls, for a reinforced-concrete arch bridge across the St. Croix River, between St. Croix Falls, Wis., and Taylor Falls, Minn., to be constructed jointly by the Commissioners of Interstate Park of the Dalles, of the St. Croix for Wisconsin and Minnesota; Board of Village Trustees of St. Croix Falls, Wis., Village Council of Taylor Falls, Minn. Bidders may also submit their own plans. L. P. Wolff is Engr., 204 Essex Bldg., St. Paul.

TOPEKA, KAN.—The LEAVENWORTH BRIDGE CO., Leavenworth, Kan., has been awarded contract for the construction of a 188-ft. span on the Willard bridge across the Kaw River, at $3,550. Bids were opened on April 22.

COLUMBUS, NEB.—Bids will be received until May 24 by John Graf, County Clk., at Columbus, for repairing and rebuilding Platte River wagon bridge, located on line between Polk, Butler and Platte counties.

McCOOK, NEB.—Bids are asked until noon, June 1, by the County Clerk for the construction of a wooden bridge across the Republican River on the county line.

POCAHONTAS, ARK.—The St. Louis & San Francisco R. R., M. C. Byers, Ch. Engr., St. Louis, Mo., will construct a steel drawbridge over the Black River, channel span 280 ft. long. Estimated cost, $100,000. Work will be done by company's forces.

LA PORTE, TEX.—The Houston & Bay Shore Traction Co., J. G. Miller, Engr., Houston, Tex., will construct a steel overhead bridge over the Southern Pacific Ry. tracks at West La Porte. Span will be 75 ft. wide, 22 ft. above tracks, and will weigh 84,000 lbs.; 140-ft. approach on either side. Estimated cost, $14,500.

DALLAS, TEX.—Dallas County has awarded contract to AUSTIN BROS., of Dallas, for constructing the Miller's Ferry bridge. Estimated cost $93,000.

BATESVILLE, TEX.—Zavala County Commissioners will receive bids in June or July for the construction of eight or ten steel bridges.

TEMPLE, TEX.—Contract for bridging on the Temple Northwestern Ry. has been let to C. G. PATTON, of Houston. W. D. PARISH, of Temple, has contracted to furnish all piling needed between Temple and the Leon River.

STEVENSON, WASH.—Bids are asked by the County Commissioners of Skamania County until 1 p. m., July 5, for the construction of a county bridge across Little White Salmon River in Sec. 15, Tp. 4, North range 9 east W. M.

PORTLAND, ORE.—Bids have been received as follows by the Oregon R. R. & Navigation Co. for the construction of the piers for the new steel bridge to be erected for the company here: Robert Wakefield, $819,000; Pneumatic Caisson Co., $675,000; Deeks & Deeks, $580,000; Foundation Co., $552,000; Union Bridge & Construction Co., 624 New Nelson Bldg., Kansas City, Mo., $517,000. J. D. Isaacs is Consulting Engr. of Bridges, 185 Adams St., Chicago, Ill.

PASADENA, CAL.—The Los Angeles County Highway Commission has prepared plans for a bridge to be constructed over the Arroyo Seco, at E. Colorado St. The structure will be of reinforced concrete, 434 ft. long, 20-ft. roadway and 4-ft. sidewalks, and steel arches. Estimated cost, $100,000.

PASO ROBLES, CAL.—The Board of Supervisors of San Luis Obispo County will soon award contract for constructing a steel and concrete bridge over the Salinas River here.

STOCKTON, CAL.—F. H. MARTIN has been awarded contract by the Board of Supervisors for the construction of the Ripon trestle, at $10,252.

NEW PLYMOUTH, IDAHO.—Contract for the construction of the new bridge at New Plymouth has been awarded by the County Commissioners to J. H. FORBES & CO., of Caldwell, Idaho, at $18,735; also for the construction of the bridge at Fruitland, at $18,546.

BRANTFORD, ONT.—Contract for constructing concrete bridges over the canal on Market St., bids opened on April 22, has been awarded by the city to J. Y. HARPER, of St. Thomas, at $42,468. T. Harry Jones is City Engr.

*WINNIPEG, MAN.—Plans and specifications are on file at the office of Engineering News, New York, for the Brown and Brant St. bridge: (a) Construction of concrete piers to be completed on or before Nov. 15, 1910; (b) erection of steel superstructure and floors, with two lines of street railway tracks, to be completed on or before June 1, 1911. Bids are asked until June 28.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

BOSTON, MASS.—Bids were received as follows on May 5 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of the foundation, basement and first floor of the extension to the Custom House, Boston, Mass.: Patrick McGovern, 6 Beacon St., Boston, $322,000; Merrett-Ruckgaber Co., New York, $420,000; Norcross Bros. Co., Worcester, Mass., $278,500; Conners Bros. Co., Lowell, Mass., $530,000; Foundation Co., 115 Broadway, New York, $441,700; Metropolitan Contracting Co., 95 Milk St., Boston, $375,062; Richard E. Heningham, 1 Madison Ave., New York, $378,856; P. J. Carlin Engineering Co., New York, $483,000.

BOSTON, MASS.—We are officially advised that a contract has been let to JAMES STEWART & CO., 30 Church St., New York City, by the Terminal Wharf & Railroad Warehouse Co., of Boston, Mass., to erect a warehouse 515 ft. long, 65 ft. wide, with eight stories and basement. The interior is of reinforced concrete mushroom system with 12-in. floor slabs. The exterior and fire walls are to be of brick. Warren & Gerrish are Engrs. and Archs., Exchange Bldg., Boston, Mass.

SPRINGFIELD, MASS.—Bids are asked until noon, May 14, by the Building Committee at the office of the City Clerk, for the erection and completion, including heating, plumbing and electrical work, of a Fire Headquarters building. The advertisement states that the building is to be erected according to revised plans and specifications prepared by B. Hammett Seabury, Arch., 21 Besse Pl. The lines of the fire station to be erected on the corner of Court and Water Sts. will follow those of the one which was to have been put up on Dwight St., except that the more expensive features have been eliminated, so as to make the total cost about $100,000. This amount covers not only the general contract, but those for heating, plumbing and electrical work as well. The fire station will be of five stories, with outside dimensions of 84 ft. on Court St. and 80 ft. on Water St. It will stand 15 ft. back from Court St. and 10 ft. from Water St. It will not be in exact alinement with the municipal group, which will stand a little farther back from the street.

HOLYOKE, MASS.—Mowbray & Uffinger, Archs., 56 Liberty St., New York, advise us that the contract for interior and exterior alterations to the first floor and basement of the City National Bank building has been let to CASPER RANGER, of Holyoke. Work will be started at once.

NEW HAVEN, CONN.—Bids are asked until 11 a. m., May 19, by the Department of Fire Service, S. J. Metzger, Secy., for constructing a fire engine house. Allen & Williams, 82 Church St., New Haven, Archs.

OSWEGO, N. Y.—We are officially advised that the R. H. HOUSE CONSTRUCTION CO., 105 West 40th St., New York, has secured a contract to construct a banking building for the First National Bank. The building will be 66 × 32 ft., and will have one story and a mezzanine floor. Mowbray & Uffinger, 56 Liberty St., New York, are Archs. Cost, $40,000.

NEW YORK, N. Y.—We are officially advised that the Hub Building Co. will erect a 20-story office building, 104.3 × 112.10 ft., at the northeast corner of Broadway and 42d St. This new building has been designed to harmonize with the 12-story Fitzgerald Building and George M. Cohen Theater, now under construction on the upper half of the same block, occupying the 43d St. corner. There will also be an arcade entrance from the 42d St. side, extending through to Broadway, about 60 ft. north of the 42d St. corner. Architecturally, its character will be in the Italian Renaissance style. It will be built entirely of a cream-white, matglazed terra cotta. Eight elevators will be installed for the upper floors, and there will be broad staircases to the floors immediately above the street. Provision is also made for the installation of an escalator for second floor service. The contract for construction has been let to the C. L. GRAY CONSTRUCTION CO., 42 Broadway. E. K. Stalle is Pres. of the Hub Building Co.; Greenwood & Co., 42 Broadway, are Mgrs.; Clinton & Russell, 32 Nassau St., are Archs. Previously noted.

An apartment house costing approximately $800,000 will be built by Vincent J. Slattery on the southeast corner of Riverside Drive and 102 St., which he purchased recently from David S. Brown, Twelfth Ave. and 51st St. The apartment, plans for which are about completed, will cover a plot fronting 77 ft. on Riverside Drive and 131 ft. on 102d St. The private house erected on the plot a few years ago by the seller will be razed in a few days to make way for the proposed structure.

Plans have been filed for a 5-story brick dwelling and store to be erected at the southwest corner of Audubon Ave. and 170th St. The building will be of brick, with terra cotta trimmings, with a frontage of 50 ft. on the Ave. and 90 ft. on the St. G. A. Fisher, of New Rochelle, is the owner and the cost is estimated at $65,000. George F. Pelham, 507 Fifth Ave., New York, is Arch.

NEW YORK, N. Y.—Plans have been filed for a 12-story mercantile building, to be erected on the north side of 25th St., 249.2 ft. east of Seventh Ave., with a frontage of 34.6 ft. and a depth of 90 ft. and a 1-story rear extension, 34.6 × 8.9 ft. The facade will be of brick, with limestone and terra cotta trimmings. It is to cost $150,000. Mary Walter Garden is the owner and William H. Birkmire, 396 Broadway, is Arch.

Schwartz & Gross, Archs., 347 Fifth Ave., for the Wellsmore Realty Co., have filed plans for an 18-story apartment house to be erected on the north side of 55th St., 200 ft. east of Ninth Ave., at a cost of $150,000. The building will have a frontage of 100 ft. and a depth of 83.5 ft. It will contain apartments for 95 families. The facade will be of brick, limestone and terra cotta and a base of polished granite.

Plans have been filed for two 7-story fireproof tenements on the west side of Macdougal St., 98 ft. south of Bleecker St., for the Fogliasso Clement Building Co. at a cost of $80,000.

Contracts for the erection of the annex to Stern Brothers' store, on 23d St., have been awarded to the THOMPSON-STARRETT CO., 49 Wall St. The building will be erected from plans by Maynicke & Franke, Archs., 298 Fifth Ave., and will have twelve stories and basement, making the floor space of the entire structure about 300,000 sq. ft. The 23d St. front will be wholly of limestone, and the 22d St. front will have limestone for the first three stories and brick and terra-cotta trimmings above that and 15 elevators will be installed. The building will be erected in two sections. The first section will be built on the 22d St. side, and is scheduled for completion by Nov. 1. Work will be started on the second, or 23d St., section later, which is to be completed by about Aug. 1 of next year. Noted on April 28.

NEW YORK, N. Y.—At the southwest corner of Broadway and Park Pl. F. W. Woolworth & Co. will erect a 30-story office building to occupy a site 172.9 ft. on Park Pl. and 80 ft. on Broadway. The building will be constructed from plans by Cass Gilbert, Arch., 11 East 24th St. The main section of the building will rise to a height of 29 stories, surmounted by a tower section ten stories high, 80 × 80 ft. in area, or larger than any similar tower in the city. The new tower will be topped with a roof-garden, and the top story will be designed for occupancy by a club. The building will cost approximately $1,500,000. It will have ten or more passenger elevators. All of the ground floor will be fitted for the Irving Exchange National Bank, and several of the floors for the executive offices of the purchasing company. Plans for the Woolworth building have been completed, and it is expected that construction will begin early in August, as leases on some of the old buildings will expire at that time.

The East River Savings Institution has purchased the northwest corner of Broadway and Reade St. The bank has appointed a building committee, but the character of the improvement of the property has not been determined. It will probably be a 20-story structure for office purposes.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 23, by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, (1) for alterations, repairs, etc., at Public Schools Nos. 3, 44, 56, 66, 70, 73, 83, 84, 85, 106, 113, 125, 137, 144 and Girls' High School, Boro. of Brooklyn; (2) for sanitary alterations at Public Schools Nos. 17, 22, 33, 38, 77, 106 and 112, Boro. of Brooklyn; (3) for repairing and refinishing old furniture, new window shades, etc., in various schools, Boro. of Brooklyn; (4) for alterations, repairs, etc., at Public Schools Nos. 2, 7, 15, 22, 34, 36, 42, 62, 64, 65, 75, 88, 92, 105, 110, 137, 147, 177 and 188, Boro. of Manhattan; (5) for alterations, repairs, etc., at Public School No. 78, Pleasant Ave. and 119th St., Boro. of Manhattan; (6) for alterations, repairs, etc., at Morris High School and Public Schools Nos. 2, 4, 10, 20, 23, 28 and Annex 35, 39, 40 and 42, Boro. of The Bronx.

Bids are asked by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Nav. Dept., Washington, D. C., until 11 a. m., June 11, for constructing an addition to the Female Nurses' quarters, at the U. S. Naval Hospital, New York. Specifications are on file at the office of Engineering News, New York.

James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has made additions to the contract of the GEORGE A. FULLER CO., Flatiron Bldg., New York, for the housing of the railway mail service in connection with the New York post-office amounting to $63,756.

FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—Bids for the construction of seven buildings at Fort H. G. Wright were opened at the office of the Constructing Quartermaster, New London, on May 6. The buildings consist of one double officers' quarters, two single officers' quarters, a guard house, ordinance shop, coal shed and wagon shed. The following are bidders and prices submitted by each:

Construction bids—William H. Fissell & Co., 1133 Broadway, New York, $74,980; Michael O'Connell, New London, $61,745; W. J. Keeley, Staten Island, $67,040; John Milnes Co., Staten Island, $61,985. Plumbing bids—William H. Fissell, New York, $5,190; Warner & Rittenhouse, Washington, D. C., $5,142; Ricardo R. Morgan, New London, $6,845; Newport Contracting & Engineering Co., Newport News, Va., $5,615; Ford & Keyes, New Haven, Conn., $5,767; George Dellon, New York, $5,776. Heating bids—William H. Fissell, New York, $4,200; Warner & Rittenhouse, Washington, D. C., $4,262; Ricardo R. Morgan, New London, $5,391; Thomas F. Burns, Norwich, Conn., $5,420; Newport Contracting & Engineering Co., Newport News, $4,176; Ford & Keyes, New Haven, $4,177. Wiring and fixtures—W. H. Fissell, New York, $1,890; R. F. Fletcher, Columbus, Ohio, $2,899; Whitall Electric Co., of Westerly, $1,170 (double officers' quarters and guard house).

NEW ROCHELLE, N. Y.—The New York, Westchester & Boston Ry. has purchased a site in upper New Rochelle, on which it proposes to erect a station. The structure is estimated to cost $50,000. Mace Moulton, 22 William St., New York, is Pres. and Ch. Engr.

*MADISON BARRACKS (Sacket Harbor post-office), N. Y.—Bids are asked by the Constructing Q. M., until 2 p. m., June 9, for remodeling and replacing old plumbing in barracks for four companies at this post.

*LONG BRANCH, N. J.—Bids are asked by A. T. Woolley, Chn. Bldg. Com., Bd. of Education, Long Branch, until 2 p. m., May 26, for constructing a High School building here. Henry C. Pelton is Arch., 10 East 33d St., New York City, and Chester A. Slocum is Heating and Electrical Engr., Long Branch.

ASBURY PARK, N. J.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 14, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Asbury Park, N. J.

JERSEY CITY, N. J.—We are officially advised that W. A. L'HOMMEDIEU & CO., 1 Madison Ave., New York, have been awarded contract for the construction of passenger station, shelter house and general improvements for Jackson Ave. Station, Central Railroad Co. of New Jersey, Jersey City, N. J.

PITTSBURG, PA.—Clifford T. and Edward E. Jenkins, for the Jenkins Estate, have let contract to the THOMPSON-STARRETT CO., 49 Wall St., New York, at about $1,000,000, for the reconstruction and addition of two stories to the Jenkins Building now located at the corner of Liberty Ave., Fifth Ave. extension and Penn Ave. The building will have an arcade to run from Liberty Ave. to Penn Ave. with an extension running through to Fifth St. In a few days the owners will begin the removal of stock from the warehouse to make way for the builders, who will commence the work immediately thereafter. The building is to be changed into a fireproof arcade, store and office building, which, when completed, will have over 100 stores in the arcade and nearly 1,000 offices. O. M. Topp, Empire Bldg., Pittsburg, is Arch.

PHILADELPHIA, PA.—Plans have been completed by Philip H. Johnson, Arch., Land Title Bldg., for the erection of a $50,000 addition to the Hahnemann Hospital.

Preliminary steps have been taken toward the establishment of a Roman Catholic parish at 65th and Collowhill Sts., the name of which has not yet been decided upon. Plans have been prepared by Rowland W. Boyle, Arch., 1626 Chestnutt St., for a stone church in the Italian Renaissance style, 100 x 50 ft., to cost about $100,000. Estimates on construction have been invited by the architect.

*SHAMOKIN, PA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 13, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Shamokin, Pa.

BALTIMORE, MD.—An effort will be made by Edward D. Preston, 1637 Edmondson Ave., Building Inspector, and Baldwin & Pennington, Archs., Professional Bldg., to change the plans for the proposed public school at Waverly so that the building may be erected within the appropriation of $120,000. The present plans call for an expenditure of $165,000.

The Emerson Drug Co., 308 West Lombard St., will erect a building at Lombard and Eutaw Sts. It will be eight stories high, according to the Baltimore "Sun," and is to be surmounted by a 200-ft. tower, the upper part of which will take the form of a bottle.. The entire structure will be 355 ft. tall. Plans were prepared by Joseph Evans Sperry, Arch., Calvert Bldg. WILLIAM H. PARKER is the builder.

WASHINGTON, D. C.—The contract for constructing an addition to the Bennings School, constructing a fourth floor addition to the Lovejoy School, and for constructing a 2-room school building on Bunker Hill Road, Brookland, D. C., has been awarded to BURGESS & PARSON, 612 13th St., N. W., Washington, D. C., at $85,385.

It is estimated that the Riggs Realty Co. will erect a theater and office building on the site of the Riggs House and the old Citizens' Bank building. Work will be started at once.

CHARLESTOWN, W. VA.—Bids were received as follows on May 4 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Charlestown, W. Va.: Barnes Bros., Manchester, N. H., $115,600; J. E. & A. L. Pennock, Land Title Bldg., Philadelphia, $108,600; Charles McCaul Co., Tenth and Sansom Sts., Philadelphia, $116,699; John G. Unkefer & Co., Minerva, Ohio, $111,463; Conners Bros. Co., Lowell, Mass., $118,000; Richard E. Henningham, 1 Madison Ave., New York, $107,487; D. J. Phipps, Newport News, Va., $109,392; James Seay & Co., Petersburg, Va., $106,335; A. F. Withrow & Co., Charlestown, W. Va., $115,000. Sept. 1, 1910.

CLEVELAND, TENN.—Bids were received as follows on May 6 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Cleveland, Tenn.: Richardson & Burgess, 1413 H St., N. W., Washington, $43,775; Harry A. Bishop, Chicago, $46,500; David Getaz Sons & Co., Knoxville, Tenn., $46,900; King Lumber Co., Charlottesville, Va., $54,673; Barnes Bros., Manchester, Va., $49,000; George Becking, Chattanooga, Tenn., $51,744; Richard E. Heningham, 1 Madison Ave., New York, $49,307.

COLUMBUS, OHIO.—Bids were received by the Director of Public Service of Columbus, Ohio, for the construction of a barn for the Garbage Department as follows: Ewers Bros., $47,213; Knox & Phillips, $43,795; D. W. McGrath, $42,669; Nichol & Carr, $41,734; R. H. Evans, $43,667; A. W. Schneider, $40,995; P. Shanahan, $39,212. The contract will be awarded soon.

Richards, McCarty & Bulford, The Ruggery, Columbus, Ohio, have been commissioned to prepare plans and specifications for a theater building to be erected by F. W. Schumacher, Vice-Pres. of the Peruna Drug Co. It is expected to erect a building six stories high and the cost will be $300,000. It will be several months before the plans are ready.

NEWARK, OHIO.—Bids were received as follows on May 7 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Newark, Ohio: Edward Henry, Sault Ste. Marie, Mich., $66,321; Conners Bros. Co., Lowell, Mass., $61,900; M. P. Wells, Witherspoon Bldg., Philadelphia, $69,843; John G. Unkefer & Co., Minerva, Ohio, $62,747; William H. Fissell & Co., 1133 Broadway, New York, $69,997; James de Vault, Canton, Ohio, $65,714; Barnes Bros., Manchester, Va., $62,600.

YOUNGSTOWN, OHIO.—The Mahoning National Bank will erect a new banking building. The structure, on the site of the old building at the southwest corner of Central Sq., will be a 12-story building. The first floor will be occupied by the Mahoning National Bank and Mahoning Savings & Trust Co., allied concerns, while the remaining floors will be fitted for office purposes. Eight offices, capable of sub-division, are provided for on each floor. The building will be of structural steel and reinforced concrete construction. The ground floor exterior is to be of gray granite and above this the exterior of the building will be finished in white glazed terra cotta. The office and elevator entrance to the building on Central Sq. immediately adjoining the Grand Opera House, will be finished in marble and mahogany and the office sections of the building in oak and marble. The bank entrance will be located in the middle of the Market St. frontage of the building. Plate glass will be used throughout the building. The officers of the Mahoning National Bank are: Pres., Edmond L. Brown; Vice-Pres., W. Scott Bonnell; Vice-Pres., W. A. Beecher; Cashier, Thomas A. Jacobs; Asst. Cashier, W. J. Roberts. Pending the erection of the new home the Mahoning National Bank occupies temporary quarters at 11 Central Sq.

CLEVELAND, OHIO.—The application for a permit to erect a 5-story mercantile and apartment building by the Euclid-Doan Realty Co. and for the theater to be built in the rear by the same concern, has been filed with the Building Inspector. The Euclid Ave. structure will cost about $100,000 and the theater $50,000. The 5-story building will be on Euclid Ave. just west of East 105th St., and the theater will have an entrance from East 105th St.

CINCINNATI, OHIO.—The plans for the proposed Union Depot that are being worked out by John E. Bleekman, will be made public in a few days. It is expected that the formal application for the franchise will be made of the City Council at once, when there will be submitted with the application full details of the project that the engineers under Mr. Bleekman have been at work upon for a year or more. This project, according to the Cincinnati "Enquirer," will involve the expenditure of $25,000,000 and possibly more. It includes a central union passenger station and terminals for electric interurbans as well, with rapid transit entrance, elevated approaches for the steam roads' passenger terminal, in addition to a system of freight terminals, including a belt railroad. Another feature will be an office building, to be a part of the depot plans.

MARION, IND.—The Pennsylvania R. R. Co. has filed plans for approval of the city for the construction of a passenger station on Tenth St.

MICHIGAN CITY, IND.—HENRY KOELIN has been awarded the contract for the construction of a business and office building at Franklin and Eighth Sts. for William Dunker.

NEWCASTLE, IND.—The Directors of the Bundy Hotel Co. have ordered plans for the construction of an extention and for adding a fourth story to the hotel building. Bids will be asked as soon as plans are completed.

INDIANAPOLIS, IND.—The Trustees of the St. Paul M. E. Church have approved plans for the erection of a building on which bids will be asked in a short time.

The Trustees of the First English Lutheran Church will soon ask for bids for remodeling the church on Pennsylvania St. An electric lighting system will be installed.

W. A. Kuhn will receive bids for the erection of a new business block on Meridian St. on the site of the building recently destroyed by fire, as soon as the plans can be prepared and debris cleared away.

The School Board has selected a site on 40th St. for the erection of a new school building to cost $70,000. Bids will be in order soon. Bids will also be asked for the construction of an 8-room addition to the Bell School on 33d St. Estimated cost, $40,000.

The School Board is preparing to ask for bids for the construction of three branch library buildings.

INDIANAPOLIS, IND.—The Board of Public Works has approved plans made by D. A. Bohlen & Son, Archs., Majestic Bldg., for the erection of an engine house on South New Jersey St. Estimated cost, $57,000. Bids will be called for in a short time.

BEDFORD, IND.—Harrison Flinn, Trustee of Flinn Township, is preparing to ask for bids for the construction of a high school building.

CRAWFORDSVILLE, IND.—The School Board has issued $82,000 of bonds, the proceeds of which will be used in the construction of a central school building. Plans have been ordered and bids will be called for soon.

LA FAYETTE, OHIO.—Plans and specifications are being prepared for the proposed high school building, to cost $250,000.

GREENCASTLE, IND.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract to JAMES H. BISHOP, Crawfordsville, Ind., for the construction of a post-office at Greencastle, Ind., at $43,297.

BROWNSTOWN, IND.—Bids will be received by the Commisioners of Jackson County for the erection of additions to the court-house; also separate bids for heating, plumbing and electrical appliances. H. W. Wacker is County Audr.

AMBOY, IND.—The School Board is preparing to build a central school building to take the place of the two school houses destroyed by fire recently.

RICHMOND, IND.—The W. F. STILLWELL CO., of LaFayette, Ind., has been awarded the contract for the construction of the proposed 4-story Second National Bank building. Cost, $100,000.

YPSILANTI, MICH.—Donaldson & Meier, Archs., Penobscot Bldg., Detroit, are preparing plans and specifications for a 2-story and basement office building, 45 x 50 ft., for the Peninsular Paper Co., of Ypsilanti, Mich. The plans will soon be ready for figures. Brick and mill construction, composition roof, steam heating and electric fixtures will be used in construction.

Estimated cost, $60,000.

The Common Council of Detroit has made appropriations for library sites as follows: Main Library, $300,000; and for five branch libraries, $50,000. Ralph Phelps, Jr., is Secy. Bd. of Libraries, Butler Bldg.

J. Lawson Miller, 15 Goebel Bldg., Detroit, has prepared plans and specifications for an addition to the building occupied by the Sisterhood of St. Vincent, Miss Helen Ryan, Secy., 262 15th St., Detroit. Stock brick, Bedford cut stone, tin roof and electric fixtures will be used in construction.

The 7-story and basement department store, 60 x 100 ft., of Hunter & Hunter, 177 Woodward Ave., Detroit, was totally destroyed by fire on April 18. Estimated cost of building, $150,000. Donaldson & Meier, Archs., Penobscot Bldg., will probably prepare plans for a fireproof building for the same location, for the Fowler Estate, Arthur Flemming, Agent, Pasadena, Cal.

FLINT CITY, MICH.—Clark & Munger, Archs., Shearer Bros. Block, Bay City, Mich., are taking figures on a 20-room High School, two stories and basement, 137 x 90 ft., for the Board of Education of Flint, Mich., W. C. Lewis, Secy. Vitrified paving brick, Bedford cut stone, galvanized iron cornice, mosaic tiling and gas and electric fixtures will be used in construction.

SAGINAW, MICH.—C. L. Coles, Chase Block, Saginaw, Mich., has prepared plans and specifications for a 5-story and basement warehouse, 145 x 220 ft., for Symons Bros., 200 North Washington Ave. Local paving brick, mill construction, composition roof, structural iron and gas and electric fixtures will be used in construction. The warehouse will cost $70,000.

GRAND RAPIDS, MICH.—Pierre Lindhout, Arch., Ashton Bldg., Grand Rapids, Mich., advises us that he has prepared plans and specifications for a 3-story church, 115 x 138 ft., to cost about $75,000, for the Wealthy Ave. Baptist Society. The church is to be fireproof, of press brick construction, with composition roof, dome skylight, galvanized iron and stone cornice, structural and ornamental iron, mosaic tiling and combination fixtures. It is probable that contracts will be let this spring.

The same architect is preparing plans and specifications for a 2-story church, 90 x 60 ft., for Zeeland Second Reformed Church. The architect will take figures soon. Brick, with composition roof, dome skylight, concrete floors and electric fixtures will be used in construction. Contracts will be let at once.

CHICAGO, ILL.—Plans have been prepared for a labor temple in Chicago which will cost $100,000. Carpenters' Union No. 62 is to have the building erected on land purchased by it several months ago at 64th and South Halsted Sts. The plans have been prepared and the contracts for the work will be awarded at once. It is expected that ground will be broken next week and that the building will be ready for occupancy next fall. The building will be five stories in height, of pressed brick and terra cotta. The first floor will be devoted to stores, and lodge and dance halls and a banquet hall will occupy the four upper floors.

Plans have been completed for the proposed Gaiety Theater and Hotel to be erected at 119 to 129 Clark St., on the east side of the street between Washington and Madison Sts., which will cost $500,000. The building will be erected by the Gaiety Theater & Hotel Co., of which Weber & Rush are the principals. They own theaters in Kansas City and Minneapolis and the Columbia Theater in New York City. The building will be nine stories high, 100 x 120 ft., and will be fireproof. It will have a seating capacity, including the main floor, mezzanine, balcony and gallery and a large proportion of loggias, of 1,550, and the hotel will have 300 rooms. The theater will be completed and opened by Feb. 1, 1911, and the hotel May 1, 1911. The facade of the building will be of dark red brick with gray terra-cotta trimmings, and there will be an ornamental iron marquise at the entrance. The entrance and lobby will be on the south side of the building and the entrance to the hotel on the north side with three stores intervening. The theater will be in the Italian classic style with fluted columns. More than half of the rooms of the hotel will be provided with private baths.

MILWAUKEE, WIS.—Contracts are being awarded for the erection of the proposed Labor Temple at Sixth and Chestnut Sts. Cost, $50,000. Charles L. Finke, 102 Wisconsin St., is Arch.

OSHKOSH, WIS.—The tentative plans, as prepared by Foeller & Schober, Archs., Fox Bldg., Green Bay, Wis., for the proposed hospital to be built at Oshkosh for the care of the criminal insane, have been accepted by the State Board of Control, Madison, Wis. The plans call for a building to cost $100,000, which it is proposed to complete within two years.

GRAND RAPIDS, WIS.—The plans for the proposed county asylum as prepared by Van Ryn & De Gelleke, Archs., Caswell Block, Milwaukee, have been accepted by the State Board of Control at Madison, Wis. Contracts will be let soon.

At the last annual meeting of the stockholders of the Johnson Service Co., an increase in the capital stock to $1,500,000, from the present capitalization of $1,000,000, was authorized, and the directors were instructed to procure a site for a new building, with especial reference to an increased output of automobiles.

AUSTIN, MINN.—Bids were received as follows on May 9 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Austin, Minn.: King Lumber Co., Charlottesville, Va., $54,480; Bartlett & Kling, Inc., Cedar Rapids, Iowa, $57,800; Northern Construction Co., 421 Milwaukee St., Milwaukee, Wis., $51,500. June 1, 1911.

ST. PAUL, MINN.—J. Walter Stevens, 905 New York Life Bldg., is receiving bids for the construction of a residence on Summit Ave. for C. L. Johnston, city. It will be built of cut stone and will cost $[illegible],000.

The State Board of Control, Charles Halvorson, Chn., awarded the contract for the 3-story pressed brick and cut stone fireproof detention hospital to be built at the State Hospital for the Insane at St. Peter, Minn., to OTTO NEITGE, of Mankato, Minn., at $58,240. The low bidders on the construction of a 3-story fireproof working girls' cottage at Faribault, Minn., were Kingsley & Payant, of Faribault, at $32,744; on the construction of a 2-story pressed brick fireproof administration building at the Walker (Minn.) State Tuberculosis Hospital were Nelson & Shulind, of Manomen, Minn., at $34,990. C. H. Johnston, Manhattan Block, St. Paul, is Arch.

WILLMAR, MINN.—The State Board of Control, Chas. Halvorson, Chn., St. Paul, Minn., has extended the date of opening of bids for the construction of the $150,000 state inebriate asylum at Willmar to May 17, at noon. On the same date the board will receive bids for the construction of the state industrial school for girls to be built at Sauk Center, Minn. C. H. Johnston, Manhattan Block, St. Paul, is Arch.

SAUK CENTER, MINN.—See Willmar, Minn.

KANSAS CITY, KAN.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of an extension to the post-office at Kansas City, Kans., to J. E. & A. L. PENNOCK, Land Title Bldg., Philadelphia, at $127,800.

BISMARCK, N. DAK.—E. G. Patterson, city, is to build, by the day, a 6-story pressed brick and cut stone, reinforced-concrete, fireproof hotel here. Plans have been prepared by H. Kretz & Co., Archs., New York Life Bldg., St. Paul, Minn. It will be 75 x 150 ft., having two electric passenger elevators, terrazzo and tiled floors, dumb waiters and house telephone system. Cost, $100,000.

*FORT MEADE, S. DAK.—Bids are asked until 10 a. m., May 28, by the Constructing Q. M., Fort Meade, for the construction of four double buildings for stable guard and shops, including electric wiring and fixtures.

GREAT FALLS, MONT.—Bids were received as follows on May 10 by James Knox Taylor, Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Great Falls, Mont.: Gagnon & Co., Billings, Mont., $149,000; J. H. Wiese, South Omaha, Neb., $187,820; John Lauritzen, Fergus Falls, Minn., $184,833; Charles H. Peckworth, New York, $194,420; King Lumber Co., Charlottesville, Va., $198,800; Lease & Richards, Seattle, Wash., $213,876; William H. Maxwell, Tacoma, Wash., $174,463.

ST. LOUIS, MO.—In August the low buildings in the 1200 block of Market St. will be razed to give place to an 8-story, reinforced-concrete building for the Continental Realty & Investment Co. The contract for the structure will be let in the next few weeks. The building was designed by O. J. Wilhelm, 406 Market St., and is to be 100 ft. square. The ground floor will contain four stores, and there will be 162 offices. It will be fireproof and will cost about $225,000. The Continental Realty & Investment Co. is a new concern. William Stutz is Pres. The building will be completed by next spring.

KANSAS CITY, MO.—The Missouri & Kansas Terminal Building Co., W. B. Strang, Pres., has been started to build here a $2,000,000 union electric railway station, according to press reports. Options are being obtained for the site. The building will be two stories high and of polished granite and Indiana limestone of the renaissance style of architecture. Besides lobbys and waiting rooms large enough for 100,000 persons to use there will be restaurants and shops of various kinds. Four tracks will be run through it. Entrance will be through private streets or passageways, so that the outgoing passengers will not interfere with the incoming passengers. Underneath the building will be a concourse 30 ft. deep for handling express, mail and baggage. Also there will be an underground connection to the new Union Station, so that all express and baggage can be delivered from the electric line terminal to the steam road station. It will connect with all the long-distance trolley lines, both city and interurban. The proposed site is between Grand Ave. and McGee St.

HOUSTON, TEX.—We are officially advised that the Missouri, Kansas & Texas Ry. System has awarded to JAMES STEWART & CO., 30 Church St., New York, through their Houston office, contracts as follows: Freight station at Houston, freight and passenger stations at Denison, Tex., and a freight station at Saladia, Tex.

HOUSTON, TEX.—Plans are being drawn by Sanguinet & Staats, Archs., First National Bank Bldg., Houston, for a 6-story building, which will be erected by the Bering-Cortes Hardware Co. on Prairie Ave. and Milam St., the site of the building which was burned down Feb. 12. The plans call for a building of reinforced concrete with an outer finish of buff or gray pressed brick. The building will have a frontage on Prairie Ave. of 75 ft. and a depth on Milam of 127½ ft. The cost of the structure is estimated at $75,000. As soon as the architects submit their plans, which will be in about two weeks, the contract for erecting the proposed structure will be let. The company expects to have the building erected and ready for occupancy by Oct. 1.

DENVER, COLO.—A building to be twelve stories high and with ground floor to be occupied by the International Trust Co., David H. Moffat, Pres., is to be erected on the Cheesman Estate corner at 17th and California Sts. The structure will cost be-

tween $850,000 and $1,000,000 and will be financed by the Cheesman Estate and the Moffat interests. The corner is occupied at present by a 2-story pressed brick building, with the Empire Hotel as tenant of the entire second floor and storerooms on the ground floor.

The plans and specifications for the $198,000 vaudeville theater the William Morris circuit is to build on Champa St., adjoining the Wyoming Bldg. at 14th St., have arrived in Denver, and will be used immediately for the purpose of letting the subcontracts. The original contract has been let to JAMES STEWART & CO., 30 Church St., New York, and the work of clearing the site has started. The structure is to be five stories high for the present, but the walls will be so constructed as to carry three additional stories. It is to be an office building and theater combined and with a rathskeller in the basement. It is to be absolutely fireproof, of steel and concrete construction and have a seating capacity of 2,000. Henry Ives Cobb, 42 Broadway, New York, is Arch.

TACOMA, WASH.—An addition to St. Joseph's hospital, to be of brick and cost between $50,000 and $75,000, is being planned, and will be in course of construction within a year. Final plans will be prepared next fall.

BREMERTON, WASH.—Bids were received as follows on May 7 by Chief of the Bureau of Yards and Docks, Navy Dept., for the construction at Puget Sound Navy Yard of (a) a general storehouse, (b) an oil storage house, and (c) two officers' quarters: E. J. Rounds, 220 Globe Block, Seattle, (a) $293,000, (b) $38,000, (c) $18,950; Conveying Machinery Co., 120 Liberty St., New York, (a) $277,560, (b) $36,361; C. F. Gras, Central Bldg., Seattle, (a) $295,473, (b) $43,508; Sound Construction & Engineering Co., Lowman Bldg., Seattle, (a) $290,000; L. A. Williams & Sons, 125 24th Ave., South, Seattle, (a) $286,253, (b) $50,155, (c) $16,938; Kieburtz, Smith & Roundtree, New York Block, Seattle, (a) $322,760; Hans Pederson, Alaska Bldg., Seattle, (a) $293,000, (b) $42,000; W. M. Concannon & Co., Monadnock Bldg., San Francisco, (a) $316,000, (b) $40,439, (c) $17,933; International Contract Co., Central Bldg., Seattle, Wash., (b) $43,670.

PORTLAND, ORE.—Plans are being prepared by W. L. Morgan, Arch., Failing Bldg., for the construction of a 5-story apartment house for the Hawthorne Building Co. The cost will be $50,000, and the location on Twelfth St. near Main St.

PORTLAND, ORE.—We are officially advised that JAMES STEWART & CO., 30 Church St., and Portland, Ore., have secured a contract for a fireproof office building, twelve stories high, with basement and sub-basement, covering plot 125 x 70 ft., for Hon. Benjamin Selling, Portland, Ore. Doyle & Patterson, Worcester Bldg., Portland, are Archs.

SAN FRANCISCO, CAL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 15, for the installation of heating plant, pumps, well, vacuum cleaning plant, electric wiring, alterations to building, etc., for the U. S. custom-house and Appraisers' Stores building at San Francisco, Cal.

A 7-story Class C steel frame hotel building will be erected for Laura Hirshfeld on plans by Alfred Henry Jacobs, Arch., 20 Montgomery St., at the northwest corner of Eddy and Jones Sts. The cost will be about $155,000. The building will cover a lot 87.6 x 97.6 ft. It will contain 150 rooms and 96 bathrooms.

SAN DIEGO, CAL.—The Pythian Building Association has approved plans for a 5-story temple to cost about $80,000 to be erected at the corner of Third and E Sts. Plans for construction were prepared by Quayle Bros., Granger Bldg., San Diego. Work will begin on structure within 30 days.

LOS ANGELES, CAL.—The F. O. ENGSTRUM CO., Fifth and Seaton Sts., has been awarded contract for erecting the Union League Club building at Second and Hill Sts., at $250,000. The building will have nine stories and basement and reinforced-concrete construction and will be 105 x 118 ft. Two passenger and one freight elevator, steam heat, vacuum cleaning system and mail chutes will be installed. L. S. Munson, Los Angeles, Cal., is Arch.

SAN MATEO, CAL.—Plans have been approved for the San Mateo Union High School and bids will be called at once for the construction of a structure in San Mateo that will cost about $100,000. The Union High School building will be of Class C construction, except that the exterior walls will be of reinforced concrete instead of brick. The interior partitions and joists will be inclosed in fireproof walls and both stairways will be of cast iron. In addition to seven recitation rooms and the offices of the superintendent, the structure will contain two laboratories, rooms for lectures on science, free hand drawing rooms, a botanical department, two rooms for domestic art, a large kitchen for domestic science and accessories. Heating and ventilating plants will be installed. Havens & Toepke are Archs., Mutual Bank Bldg., San Francisco.

*WHIPPLE BARRACKS (Prescott post-office), ARIZ.—Bids are asked by Lieut. G. G. Bartlett, Constr. Q. M., until 3 p. m., May 31, for furnishing labor and material required for the construction of a quartermaster's storehouse at Whipple Barracks.

MONTREAL, QUE.—The announcement has been made by D. B. Hanna, Vice-Pres. of the Canadian Northern, and Controller of the company's Quebec lines, that the company is considering an expenditure of between $3,000,000 and $4,000,000 on a central passenger station in Montreal. The plan is to secure as a site for a structure, the whole of the property abutting on Craig St. between Bleury St. and Victoria Square at the lower end and running to Dorchester St.

WATER-SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

HINSDALE, N. H.—Contracts for pipe line 11, Hinsdale, were awarded on April 28 as follows: Pipe, to CHARLES MILLAR & SON, of Utica, N. Y., at $25.50 per ton; hydrants and valves, to the CHAPMAN VALVE CO., of Indian Orchard, Mass.; laying pipe, etc., to ALBETT & BOWERS, of Cohoes, at $2,694. Dudley & Sawyer are Engrs., Manchester.

NEW BEDFORD, MASS.—Bids have been received by the city as follows for furnishing 2,000 ft. of 2-in. genuine galvanized w.-i. pipe: Wood, Brightman & Co., $15.50 per 100 ft.; New Bedford Boiler & Machine Co., $14.40 per 100 ft.; Babbitt Steam Specialty Co., $14.40 per 100 ft.; Walworth Mfg. Co., Boston, $13.70 per 100 ft.; Braman, Dow & Co., Boston, $13.68 per 100 ft.

PITTSFIELD, MASS.—Bids will probably be asked this month for the construction of a reservoir on Mill Brook, from the plans of A. B. Farnham, Ch. Engr., Bd. Pub. Wks. Estimated cost, $150,000.

WESTERLY, R. I.—The ABERTHAW CONSTRUCTION CO., 8 Beacon St., Boston, Mass., has been awarded contract for erecting a reinforced-concrete standpipe, 40 ft. inside diameter, nearly 100 ft. high, and capable of holding 70 ft. of water.

WATERBURY, CONN.—Bids will be received by the Board of Public Works, R. A. Cairns, Engr., until 8 p. m., June 7, for the construction of the Morris reservoir. The following are the approximate quantities: Stripping under embankment, 500 cu. yds.; excavation of trenches, 1,000 cu. yds.; rock excavation, 400 cu. yds.; concrete masonry, 1:3:6, 25,600 cu. yds.; concrete masonry, 1:3:5, 5,000 cu. yds.; concrete blocks, 2,960 cu. yds.; rolled embankment, 525,000 cu. yds.; crushed stone, 5,900 cu. yds.; crushed stone, supplied by city, 2,400 cu. yds.; paving, 8,900 cu. yds.; loaming on dam, 6,300 cu. yds.; loaming adjacent areas, 5,000 cu. yds.; seeding, 650 sq. rods; sodding, 18,840 sq. yds.; 700 8-in. drain tile; eight catch-basins; drain gate-house complete; service gate-house; granolithic flooring, 30 sq. yds. Estimated cost, $300,000.

*NEW YORK, N. Y.—Bids are asked until 11 a. m., May 24, by the Board of Water Supply, for Contract 80, for the construction of the Breakneck tunnels, portions of the Hudson River division of the Catskill aqueduct, comprising about 710 ft. of plain concrete conduit known as aqueduct in open cut, or cut-and-cover aqueduct, 17 ft. high by 17 ft. 6 ins. wide inside, and a tunnel on the hydraulic gradient about 1,055 ft. long, 17 ft. high by 13 ft. 4 ins. wide inside, connecting by a shaft about 500 ft. deep with a deep pressure tunnel 14 ft. inside diameter and about 700 ft. long. The work is located in the towns of Fishkill, Dutchess County, and Phillipstown, Putnam County; also for Contract 44, for furnishing, delivering and installing six 6-ft. by 15-ft. sluice-gates, 25 5-ft. by 13-ft. sluice-gates, four 5-ft. by 8-ft. back pressure sluice-gates, seven 5-ft. by 8-ft. sluice-gates, six 5-ft. by 6-ft. sluice-gates, three 4-ft. by 5-ft. sluice-gates, eight 3-ft. by 5-ft. sluice-gates, three 30-in. by 42-in. sluice-gates, two 18-in. by 24-in. sluice-gates, with operating mechanisms; two sets of drive-shafting and all appurtenances, complete, and in every respect ready for use, at Ashokan, Kensico and Hill View reservoirs, and in various structures along Catskill aqueduct. For details see advertisement in this issue.

No bids were received on April 28 by the Board of Water Supply for Contract 82, furnishing and delivering in Stapleton, S. I., 3,800 tons 36-in. c.-i. flexible-jointed water pipes, to be used in the construction of the Narrows Siphon, a portion of the Catskill Aqueduct, in New York Harbor.

NEW YORK, N. Y.—A certificate of incorporation of the Deep Well Water Co. of the Borough of Queens was filed on May 2 with the Secretary of State, at Albany, being a reorganization of the Woodside Water Co. The capital stock is $1,000,000. The directors are: W. G. Berryman, Watson B. Ellbick, George R. Shields and Glenn H. Mills, of New York, and George J. Johnstone, of Passaic, N. J.

BUFFALO, N. Y.—Francis G. E. Ward, Comr. of Pub. Wks., has recommended to the Common Council that $1,000,000 of bonds be issued to provide necessary funds to continue the construction of the new inlet and tunnel, pumping stations, pumps, equipment and mains of the water-works.

BUFFALO, N. Y.—The city has awarded contract to the HOLLY MFG. CO., Roberts Ave., near Clinton St., Buffalo, for five 30,000,000-gallon vertical triple-expansion steam pumps for the new water-works pumping station at $674,700.

The NORTHERN ENGINEERING CO., Detroit, Mich., has secured contract for a 30-ton electric traveling crane, at $9,950.

Contract has been awarded to the DEANE STEAM PUMP CO. for feed pumps, water-heaters and purifying system for the new pumping station, at $24,330. F. G. Ward is Comr. Pub. Wks.

*YONKERS, N. Y.—Bids were received on May 2 by the Board of Contract and Supply for furnishing and delivering on the public dock at Yonkers before June 15, 1910, 100 lengths of 12-in. pipe, weighing 1,100 lbs. per length and 1,000 lengths of 6-in. pipe, weighing 430 lbs. per length. Contract has been awarded to the CAMDEN IRON WORKS, Camden, N. J., at $24.20 per ton. J. V. Mahoney is Secy.

ROSLYN (L. I.), N. Y.—Contracts will probably soon be let for constructing water-works here. Ralph Tubby is Secy. Bd. W.-Wks., Roslyn Water Dist.

BRIDGETON, N. J.—Bids have been received as follows by the Council for 2,300 ft. of 6-in. c.-i. water main: R. D. WOOD & CO., 400 Chestnut St., Philadelphia, Pa., $24.50 per net ton (awarded contract); U. S. Cast Iron Pipe & Foundry Co., $27.20; J. Thompson Co., $26.70; Donaldson Iron Co., $26.20; Standard Cast Iron Pipe & Foundry Co., $25.80. All these prices are per net ton, for delivery in Bridgeton.

*FORT HANCOCK, N. J.—Contracts have been awarded as follows for the construction of a pumping plant and installation of machinery here: Pump-house and stack, to EDWARD FAY & SON, 1521 Ranstead St., Philadelphia, Pa., at $19,190; for boilers, to A. D. GRANGER CO., 90 West St., New York, at $11,945. Bids were opened on April 6. List of bidders noted on April 14.

*NEWARK, N. J.—Bids are asked by the Board of Street and Water Commissioners until 3.15 p. m., May 19, for furnishing c.-i. pipe. For details see advertisement in this issue.

PITTSBURG, PA.—M. B. Shepherd, of Pittsburg, and George H. Benzenberg, of Milwaukee, Wis., Consulting Engrs., have been selected to assist the city officials in preparing plans for increasing the supply of filtered water from the filtration plant in Aspinwall. William A. Magee is Mayor.

WILKES-BARRE, PA.—Bids will be received until May 14 by Morgan A. Cease, at office of Spring Brook Water Supply Co., 16 North Main St., Wilkes-Barre, for constructing a concrete dam on Harvey's Creek, near Cease's Mills, Plymouth Township.

BALTIMORE, MD.—The city has awarded contract to CHARLES L. STOCKHAUSEN, National Marine Bank Bldg., Baltimore, for erecting a brick and concrete gatehouse at the southeast section of the new high-service reservoir, south of Liberty Road, at $14,900.

BALTIMORE, MD.—All the bids for the construction of the new pumping station of the fire department pipe line were rejected by the Board of Awards on May 4. The lowest bidder was the Noel Construction Co., German and Calvert Sts., Baltimore, at $115,000. Noted last week. B. T. Fendall is City Engr.

MURPHY, N. C.—The city has voted to issue $25,000 of additional water-works bonds.

FRANKLIN, N. C.—The city has voted $20,000 of sewer and water bonds.

SYLVANIA, GA.—The city has voted $40,000 of bonds for the construction of water-works, electric light and sewer system.

FORT OGLETHORPE, GA.—Contract for sinking two 8-in. tubular wells at Fort Oglethorpe has been awarded to PERRY ANDREWS and F. C. BUTTS, care of Constructing Quartermaster, Fort Oglethorpe, at $4,500 each.

MILTON, FLA.—The city has voted $25,000 of bonds for water-works.

LOUISVILLE, ALA.—See item under Light and Power Plants.

PHENIX CITY (Columbus, Ga., Post-office), ALA.—The city will improve pumping system of water-works and plans to construct an electric line from Phenix City to pumping station, using alternating current, and install pump and dynamo. The Columbus Railroad Co. will pay for electric line and city for pumps and dynamo.

WAVERLY, OHIO.—The City Council on May 2 engaged H. C. Babbitt, Engr. of Loveland, Ohio, to prepare the specifications for and to supervise the installation of, the municipal water-works plant, for which bonds have already been issued and sold.

DETROIT, MICH.—The CAREY CONSTRUCTION CO., of Cleveland, Ohio, has been awarded contract for 6,000 yds. of concrete in connection with the installation of a new pumping station, at $136,000, agreeing also to include 200 tons of steel and excavate 20,000 yds. of dirt for the sewage tank.

FOND DU LAC, WIS.—D. W. Mead, of Madison, in his report on the water-works, recommends improvements as follows: Pumping engine, 5,000,000 gallons capacity, $20,000; a 200-HP. boiler, $2,500; rearrangement and connections, $3,000; new deep well, $3,000; new deep well pump and motor, $2,000; changes in reservoir, $7,500; new mains, 1 to 5-in., $18,000. Total cost for immediate improvements, $61,000; and also new mains, 6 to 14-in., $41,500. Total cost of immediate and future improvements, $102,500.

MILWAUKEE, WIS.—The CON RAULF, JR., CONSTRUCTION CO., has been awarded contract for completing the 36-in. water-main through the east side, that is to be continued under the Milwaukee River to Eleventh Ave. and Scott St. Estimated cost, $24,315.

DOWS, IOWA.—Bids will be received by V. H. Rummel, Town Clk., until 8 p. m. May 25, for all materials and labor for the construction of the extension of the water system of the Dows water-works.

MINNEAPOLIS, MINN.—The Council Pure Water Committee has decided to commence construction in about 60 days on the proposed mechanical filtration plant from the plans of Hering & Fuller, 170 Broadway, New York. Andrew Rinker, City Engr., has been selected to communicate with parties experienced in supervising the construction of such plants, with a view to employing an overseer. The work is to be done, aside from the supervising, by day labor employed in Minneapolis. Estimated cost, between $600,000 and $700,000.

CHISHOLM, MINN.—The Water, Light, Power and Building Commission has received a report from D. W. Mead, Madison, Wis., on the water system, which recommends a new steel water tank, additional distributing mains, new parallel main on Lake St., reconstruction of pump and boiler-house and a new pumping engine, boiler and new settling basin. C. D. Purple has been appointed to take these matters up with Mr. Mead.

ALBERT LEA, MINN.—We are officially advised that bids were opened as follows on April 26 by the city for water main extensions: Thilmanning, Whalen & Co., La Crosse, Wis., $3,606; Aug. Geisler, Albert Lea, $3,670; Greene Bros., Albert Lea, $3,809; W. D. Lovell, Minneapolis, Minn., $2,952; Tanner Bros., Minneapolis, $3,199; COOK CONSTRUCTION CO., Des Moines, Iowa, $2,932 (awarded contract).

KANSAS CITY, KAN.—The U. S. CAST IRON PIPE & FOUNDRY CO., 217 La Salle St., Chicago, Ill., has secured contract to supply the city with 39,000 tons of water pipe at about $100,000. The piping will be used in extending a water main from Twelfth St. and Quindaro Boulevard south to Tenth St. and Miami Ave., and east through Armourdale.

LINCOLN, KAN.—See item under Light and Power Plants.

SEARCY, ARK.—Bids are asked until 3 p. m., May 25, by J. F. Headlee, Secy. Bd. Pub. Improvements, for furnishing material and constructing a water-works system. W. S. Shields Engineering Co. are Engrs., 1201 Hartford Bldg., Chicago, Ill.

WALDRON, ARK.—The city is having plans prepared by E. W. Gantt, of Sequoyah Engineering Co., Fort Smith, Ark., for the construction of water-works.

FORT RENO, OKLA.—Contract for the erection of a 60,000-gallon steel tank and trestle to replace two old wooden tanks at the Reno remount depot, has been awarded to the DES MOINES IRON & BRIDGE CO., Des Moines, Iowa, at $6,300; to S. I. WICK, El Reno, Okla., for ten cisterns, $3,987; OKLAHOMA ENGINEERING CO., Anadarko, Okla., two cisterns.

BROKEN ARROW, OKLA.—Archer & Rollins, of Kansas City, Mo., are preparing plans for the proposed water-works. Estimated cost, $37,000.

COLORADO SPRINGS, COLO.—E. C. Van Diest is drawing plans for the Trustees of the Myron Stratton Home for a storage reservoir to be constructed on property owned by the corporation just south of the city on the site formerly occupied by the old Broadmoor dairy buildings. The reservoir, which will be utilized to irrigate land surrounding the Myron Stratton Home buildings, will impound 600 acre-ft. and will cost between $20,000 and $25,000.

FORT WARD (Port Blakely post-office), WASH.—Bids are asked until 11 a. m., May 28, by Capt. E. C. Lang, Constructing Q. M., U. S. A., 482 Arcade Annex, Seattle, for the construction of a water system, including construction of building, engine pump, etc., two reinforced concrete reservoirs, one catch-basin, one settling tank and distributing system at Fort Ward.

ABERDEEN, WASH.—The Inland Waterway & Canal Co. proposes to construct a canal 18 miles long between Grays Harbor and the Columbia River by way of Willapa Bay. J. H. Marshall, of South Bend and Seattle, is interested.

SPOKANE, WASH.—John Gifford, City Purchasing Agt., has awarded the following contracts: For furnishing water department soft steel pipe, to CRANE & CO., 10,000 ft. ¾-in., at $4.75 per 100 ft.; 15,000 ft. 1-in., at $7.63 per 100 ft.; 3,000 ft. 1½-in., at $11.15 per 100 ft.; 2,000 ft. 2-in., at $14.87 per 100 ft.; for 20 tons pig lead, to same, at $5.62½ per 100 lbs.

KENT, WASH.—Bids have been opened for constructing a pipe line from the Springs. Contract has been awarded to W. H. MITCHELL, of Seattle, at $56,986. The work comprises 40,200 ft. of 14-in. pipe, 12,400 ft. 12-in. pipe, an intake at Springs, a concrete reservoir, and 550 ft. of bridging. Other bids were: More & Kible, Tacoma, $66,921; American Construction Co., Seattle, $64,860; D. Swank & Co., Kent, $62,996; Rich-Harris Co., Seattle, $66,804; International Construction Co., Seattle, $94,606; McMahon Co., Kent, $65,500; A. W. Springston, Seattle, $64,996; C. E. Bode Co., Portland, Ore., $63,400; Kent Construction Co., Kent, $61,976; Gimberson Madison, Kent, $64,599; Bones & Simpson, Kent, $63,625; Creelman Puhman, Tacoma, $65,446. L. E. Price is City Clk.

FORT STEVENS, ORE.—Bids are asked by the Constructing Quartermaster, Fort Stevens, until 2 p. m., May 16, for five reinforced-concrete cisterns, 11,400 gallons capacity each.

*HOOD RIVER, ORE.—Bids were received by H. B. Langille, City Recdr., on April 25, for the construction of a complete municipal water system in and for the city of Hood River. All bids were rejected.

VISALIA, CAL.—Bonds for $75,000 have been voted for a concrete aqueduct in Mill Creek.

SAN FRANCISCO, CAL.—PRINGLE-DUNN & CO., of San Francisco, have secured contract, it is reported, for laying water mains and connections to provide for protection system, etc., at the Presidio, San Francisco, at $3,947. Marsden Manson is City Engr.

BROCKVILLE, ONT.—See item under Light and Power Plants.

PRINCE ALBERT, SASK.—Bids will be received by C. O. Davidson, City Clk., until May 14 for the construction of extensions to the water and sewerage systems of the city, comprising approximately the following work: 4,585 lin. ft. of 10-in. watermain; 984 lin. ft. of 8-in. water main; 3,395 lin. ft. of 6-in. water main; 6½ tons of special castings; 19 valves; 13 hydrants; 535 lin. ft. of 24-in. storm sewer; 667 lin. ft. 18-in. storm water sewer; 508 lin. ft. of 8-in. storm sewer; 3,656 lin. ft. of 8-in. sanitary sewer; 13 manholes; one flush-tank; one lamphole; 16 catch-basins. Plans and specifications may be seen at the office of the City Engineer.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids were opened on May 2 by the Superintendent of Streets for sewer construction in Tremont and Whittier Sts., Ward 18. Antonio Cefalo submitted the lowest of nine bids opened at $25,916.

*NORTH ANDOVER, MASS.—Bids are asked by the Board of Public Works until 8 p. m., May 26, for constructing about 6,300 lin. ft. of pipe sewer. Pipe, brick and cast-

ings will be furnished by the town; also for furnishing sewer pipe, brick, cement and manhole castings. Ernest W. Bowditch is Engr. For details see advertisement in this issue.

ATTLEBORO, MASS.—The citizens on April 29 voted an appropriation of $200,000 for a new sewer system.

FONDA, N. Y.—The Village Board of Trustees on May 25 opened bids for the construction of the sewer system here. M. F. Dollard, of Albany, was the lowest bidder at $15,804.

AMSTERDAM, N. Y.—Bids will be received by the Sewer Commissioners until 8 p. m., June 1, for furnishing all the materials and constructing complete sewers in the following streets: An 8 and 10-in. sewer in Lakeside Pl., Clizbe Ave. and Hewitt St.; an 8-in. sewer in Tryon St., from Main to Division Sts. A. T. Young is Secy.

NEW YORK, N. Y.—Bids were received by the President of Manhattan Borough on May 5 for furnishing all the labor and material required for outlet sewer and appurtenances, from Haven Ave. to Riverside Drive, and sewers in Haven Ave., from Fort Washington Ave. to the summit north of 171st St., and in 169th and 170th Sts., between Fort Washington and Haven Aves.: Terry & Tench Co., Lexington Ave. and 131st St, New York, $17,691; W. J. Brennan, $22,584; Felix Gasperini, $18,702; Joseph Moore, $21,922; W. J. Ford, $22,966.

BELMAR, N. J.—Contract for constructing sewage disposal works, bids opened on May 3, has been awarded by the town to J. W. HELLER, 738 Broad St., Newark, at $14,-900. Clyde Potts, 30 Church St., New York, is Engr.

*PLAINFIELD, N. J.—Bids will be received by the Common Council until 8 p. m., June 6, for the construction of sanitary sewers, including 4,210 ft. 8-in. vitrified pipe sewer, 6 to 10 ft. deep; eleven manholes, two flush manholes, 150 branches, 440 ft. 4-in. vitrified pipe house connections. Andrew J. Gavett is Engr.-in-Charge.

PENN'S GROVE, N. J.—We are officially advised that Clyde Potts, 30 Church St., New York, has been retained by the Borough to design sewers and sewage disposal works.

CRANFORD, N. J.—All bids for the construction of sewers in North Ave. have been rejected by the Sewer Committee.

*SUMMIT, N. J.—Bids will be received by the Executors of the W. H. Risk Estate at the City Hall, Summit, until 8 p. m., May 12, for the construction of 3,035 lin. ft. of 6, 8, and 10-in. vitrified pipe sanitary sewers, and 2,395 lin. ft. of 8, 10, 12 and 15-in. storm sewers, in the following location: Beacon Road, Fernwood Road and along a proposed new road, also a right-of-way line, and manholes, excavations, etc., necessary to same; also the grading of a proposed new drive, 1,000 ft. long. The plans and specifications of the work can be examined at the office of John S. Stiger, C. E., Summit. The contract to be completed within 90 working days from date of beginning work.

EMSWORTH, PA.—Bids will be received at the office of the Borough Engineers until 4 p. m., May 19, for the construction of sewers in the following streets: Hilands Ave., from Emsworth Ave. to a point 400 ft. east; Orchard Ave., from Beaver Ave. to Center Ave.; Center Ave., from Pennsylvania Ave. to Locust St.; Church Ave., from Center Ave. to the north borough line. McBride Surveying & Engineering Co., 708 Fitzsimons Bldg., Pittsburg, are Boro. Engrs.

*PHILADELPHIA, PA.—Bids will be received by R. E. Smith, Secy. Sewer Building Com., until 1 p. m., May 24, for furnishing all materials and laying complete about 8½ miles of sewers, varying in size from 6 to 24 ins. in diameter, together with all manholes, lampholes, flush tanks, etc.; also a sewage disposal plant consisting of settling tanks, sprinkling filters and sedimentation tank. For details see advertisement in this issue.

*BALTIMORE, MD.—Bids will be received by the Board of Awards at the office of J. Sewell Thomas, City Register, until 11 a. m., May 25, for constructing sanitary lateral sewers in Dist. 19-A and certain sewers in Dists. 19-B, 21 and 35. Calvin W. Hendrick is Ch. Engr., Sewer Comn., American Bldg. For details see advertisement in this issue.

*WASHINGTON, D. C.—Bids are asked by the District Commissioners until 2 p. m., May 23, for constructing sewers in the District of Columbia.

FRANKLIN, N. C.—See item under Water Supply—Irrigation.

SYLVANIA, GA.—See item under Water Supply—Irrigation.

MILTON, FLA.—The city has voted $10,-000 of bonds for the construction of a sewer system.

BIRMINGHAM, ALA.—Bids will be received until May 16 by Robert Tait, City Treas., for constructing sanitary sewers in portions of S. Decatur and Clinton Sts.

MORRISTOWN, TENN.—Bids will probably be asked about May 23 by the Sewer Committee, E. R. Smith, Secy., for about nine miles of pipe sewers and a sewerage disposal plant, with settling tanks and sprinkling filters. Charles E. Collins, Drexel Bldg., Philadelphia, Pa., is Engr.

HARTFORD, KY.—Bids will be received until noon, May 19, by James H. Williams, Mayor, for constructing about three miles of 8 to 18-in. sanitary sewers. R. T. Collins is City Clk.

*LOUISVILLE, KY.—Bids were opened by the Commissioners of Sewerage, P. L. Atherton, Chn., on April 15 for Contract 65, for sewers in 15th and 23d Sts. Contract has been awarded to B. C. MILNER SONS CO., of Louisville, at $15,998. J. B. F. Breed is Ch. Engr.; Harrison B. Eddy, 14 Beacon St., Boston, Mass., is Consulting Engr.

GIRARD, OHIO.—C. L. ALLEN, of Marion, has secured contract for constructing sewer in Dist. 3, at $7,807.

SANDUSKY, OHIO.—The City Council has passed the ordinance providing for the construction of 2,000 ft. of 24-in. sewer in Venice Road. R. B. Smith is City Engr.

TOLEDO, OHIO.—Bids will be received until May 18 by the Department of Public Service, Fred. Shane, Secy., for constructing local sewers Nos. 1069, 1098 and 1099.

CINCINNATI, OHIO.—Bids will be received until May 13 by the Board of Public Service, John J. Wenner, Clk., for constructing main and lateral sewers and drains in Isabella St., Union and Marion Aves., Hyde Park.

COLUMBUS, OHIO.—The City Council has passed resolutions providing for the construction of sewers in various streets, avenues and alleys.

YOUNGSTOWN, OHIO.—Bids will be received by the Director of Public Service until May 27, for furnishing the necessary labor and materials for the sewering of Garrick St., between W. Chalmers Ave. and Tremont St.

LAPORTE, IND.—The Council on May 3 awarded contract to the INDEPENDENT CONSTRUCTION CO., of Terre Haute, Ind., for the construction of the new sewer outlet at $134,499.

BUSHNELL, ILL.—Plans have been completed by Cephus Holmes, Engr., Macomb, Ill., for sewer system and purification tanks. Estimated cost, $41,000. W. H. Dawson, City Clk.

MILWAUKEE, WIS.—The Board of Public Works on April 26 awarded contract to G. E. SIMMONS for a relief sewer in Hubbard St., 2,980 lin. ft. long, at $14.89 per lin. ft., and to R. W. FORRESTAL for a sewer in Sycamore St., from W. Water to the river, at $7.34 per ft.

CORLISS, WIS.—Bids will be received until May 17 by the city for the construction of a sewer system, from plans of the W. S. Shields Engineering Co., of Chicago, Ill. Estimated cost, $9,000.

APPLETON, WIS.—The Board of Public Works will receive bids until June 3 for constructing a concrete sewer in the Fifth Ward. C. H. Vinal is City Engr.

COLFAX, IOWA.—A. Watkins, Engr., of Iowa City, is preparing plans for 12,000 ft. of sewers.

CEDAR FALLS, IOWA.—Bids ars asked until 7.30 p. m., May 20, by the City Clerk for the construction of a sanitary sewer in portions of several streets. H. Jacob Pfeiffer is Mayor.

ALBERT LEA, MINN.—We are officially advised that bids were received as follows on May 5 for the construction of sewers here: Thillmanning, Whelan & Co., La Crosse, Wis., $6,096; Greene Bros., Albert Lea, $6,412; Tanner Bros., Minneapolis, $6,-169; ILLSTRUP & OLSON, Minneapolis, $5,-450 (awarded contract). William Barnack is City Engr.

Plans are being prepared for an extensive sewer system, bids to be called for shortly.

ST. JOHN, KAN.—Bids will be received until May 20 by A. O. Seevers, City Clk., for constructing a complete sanitary sewer system, including disposal plant. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

MARION, KAN.—Contract for constructing concrete septic tank including two motors and two pumps, bids opened on April 18, has been awarded to LEWIS & KITCHEN, of Kansas City, Mo., at $4,170. J. W. Mavity, of Marion, is Engr.

MANHATTAN, KAN.—We are officially advised that bids were received as follows on May 3 by the city for the construction of a sanitary sewer system here: W. W. COOK & SON, Junction City, Kan., $88,124 (awarded contract); Katz-Craig Construction Co., Omaha, Neb., $92,421; New State Co., Tulsa, Okla., $93,936; Bash & Gray, Joplin, Mo., $95,008; E. D. Reed, Clay Center, Kan., $95,625; McGuire & Stanton, Leavenworth, Kan., $101,687. C. M. Buck is City Engr.

LEAVENWORTH, KAN.—The City Commissioners on April 30 awarded contract to McGUIRE & STANTON for constructing main and lateral sewers here at $34,954.

YORK, NEB.—Bids will be received by the City Clerk about May 15 for concrete-steel reinforced sewer. Estimated cost, $20,000.

HELENA, MONT.—The MIRACLE-TRIPP CONCRETE CO. has been awarded contract for the construction of the storm sewer in Davis St. at $22,103.

KANSAS CITY, MO.—According to the Kansas City "Journal," the newly organized Board of Public Works has decided to reject all pending bids for the construction of Brush Creek sewer and abandon the proceedings for the work undertaken by its predecessors. This means that all details in connection with the undertaking will have to be begun anew, and will result in the dismissal of the injunction pending in the Circuit Court against the preceding board not to let contracts.

ST. LOUIS, MO.—Bids are asked by the Board of Public Improvements until noon, June 14, for Glaise Creek joint district sewer. Estimated cost, $180,000.

Bids are asked until noon, June 7, by the Board of Public Improvements for North Harlem joint district sewer, first and second sections. Estimated cost, $141,000 and $148,-000, respectively. Maxime Reber is Pres.

STUTTGART, ARK.—The KRESS CONSTRUCTION CO., North Main St., Oklahoma City, Okla., has been awarded contract by the city for the construction of about six miles of sewer and purification works at $17,130. Bids were opened on April 25.

SEARCY, ARK.—Bids are asked until 3 p. m., May 25, by J. F. Headlee, Secy. Bd. Pub. Improvements, for furnishing materials and constructing a system of sanitary sewers. W. S. Shields Engineering Co. are Engrs., 1201 Hartford Bldg., Chicago, Ill.

WOODWARD, OKLA.—The City Council on April 26 awarded contract for the installation of 13 miles of sanitary sewers to the AMERICAN LIGHT & WATER CO., Scarritt Bldg., Kansas City, Mo., at about $63,500.

LAWTON, OKLA.—The city has voted $40,000 of bonds for the construction of a storm sewer along or near Squaw Creek. Z. M. Seifres is City Engr.

BRUSH, COLO.—Bids are asked until May 23 by the city for the construction of a sanitary sewer. Engineer's estimate, $50,-000. C. H. Meeker is Engr., McCook, Neb.

FORT WINGATE, N. MEX.—Bids are asked until 11 a. m., June 1, by the Constructing Quartermaster, U. S. A., for furnishing all labor and material required for the construction of a sewer system here.

SEATTLE, WASH.—Bids are asked until May 27 by the Board of Public Works for the Lake Washington District of the north trunk sewer.

KLAMATH FALLS, ORE.—Bids for 16,700 ft. of cement sewer were opened on April 25. Contract has been awarded to CHICO CONSTRUCTION CO., of Chico, Cal., for laying pipe, manholes, etc., at $16,900, and to GLADDING, McBEAN & CO., of San Francisco, Cal., for furnishing pipe at $5,-540.

SALEM, ORE.—The city will spend $225,-000 for the installation of a sewer system in South and North Salem. The plans for the system in South Salem, drawn by the City Engineer, will cover 90,000 ft. or 19 miles and will have laterals so that every residence can be connected with it. Cost, between $90,000 and $125,000. The plans for the North Salem system have been remodeled by the engineer and work will be rushed.

PASADENA, CAL.—Contract for the construction of the Coloma Ave. sewer has been let to CHAMBERLAIN & WILLIAMSON at $10,589.

LOS ANGELES, CAL.—M. W. Miagenovich was lowest bidder for constructing a pipe and brick sewer in Westey Ave. at $14,-928.

SAN FRANCISCO, CAL.—The Board of Public Works has approved the plans for the North Point sewer, which will serve the needs of the entire North Beach district, and on April 29 authorized a resolution calling upon the Board of Supervisors to appropriate $165,000 for the commencement of work upon section A of the sewer. Marsden Manson is City Engr.

TORONTO, ONT.—Bids will be received until May 17 by A. R. Geary, Mayor and Chn. Bd. of Control, at the office of C. H. Rust, City Engr., for centrifugal pumps and electric motor for pumping sewage.

TORONTO, ONT.—Bids are asked by the Board of Control until noon, May 17, for the construction of sewers in various streets.

GARBAGE DISPOSAL.

(denotes that this work is advertised in Engineering News.)*

LANCASTER, PA.—The Sanitary Committee of Councils on May 2 opened bids as follows for the collection of garbage: T. Scott Dickey & Co., for collecting and disposing of garbage for one year, $10,000; for three years or five years, $9,500 per year. Lancaster Garbage & Disposal Co., $9,648 for one year and $28,800 for three years. To haul and collect by the ton, the bid was $1.85. T. L. Norris, $8,947 for one year, with privilege of five years more. CONESTOGA GARBAGE CO., George D. Landis, Mgr., $8,917 per year for one year (awarded contract).

CLEVELAND, OHIO.—Bids are asked by A. B. Lea, Dir. Pub. Ser., until noon, May 31, for the exclusive right to pick all waste and refuse of all kinds on the East Ninth St. dump.

COLUMBUS, OHIO.—See item under Buildings.

BLOOMINGTON, ILL.—Bids for the collection of garbage here for the five summer months beginning May 15 and ending Oct. 15, have been received as follows: William A. Moore, $50 per month; Ed. Hackett, $50; William Riner, $50; S. A. DAY, $40 (awarded contract).

ST. LOUIS, MO.—Bids are asked by the Board of Public Improvements until noon, May 20, for furnishing all materials and labor necessary for the removal of dead animals for a period ending Dec. 31, 1929. W. B. Dryden is Secy.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

AUGUSTA, ME.—Bids will be received by Paul D. Sargent, State Comr. of Highways, until May 24 for building a section of state road about 5.4 miles in length.

CONCORD, N. H.—Bids are asked by H. C. Hill, State Engr., until 1 p. m., May 20, for constructing 6,400 ft. of traprock road in Keene, N. H.

WILLIMANTIC, CONN.—The following bids have been received by the Street Committee for 2,131 sq. ft. of granite block and 260 cu. yds. of concrete base pavement on Main St.: Southern New England Paving Co., Hartford, Conn., $7.025; A. J. Langefeld, Hartford, $6,454; C. W. Burton, Norwich, Conn. $5,101.40. The contract has not been awarded.

HEMPSTEAD (L. I.), N. Y.—ANDREWS BROS., of Mineola, have secured the contract for macadamizing New Hyde Park Road, at $11,404.

NEW YORK, N. Y.—Bids are asked by the Park Board, until 3 p. m., May 19, for furnishing gravel for parks and parkways.

NEW YORK, N. Y.—Bids are asked until 11 a. m., May 25, by Alfred E. Steers, Pres. Boro. of Brooklyn, for paving and laying sidewalks on certain streets in Brooklyn, and for fencing certain vacant lots.

TROY, N. Y.—The lowest bid received on April 26 by the Board of Contract and Supply for paving a portion of South St. was submitted by the Corliss Construction Co., at $6,010, for macadam. James M. Kelley is Secy. Bd.

*ALBANY, N. Y.—Bids are asked by the State Highway Commission until noon, May 27, for the construction of state highways as follows: Altamont Village Road No. 849, Albany County, length, 1.1 miles; Olean-Hinsdale Road No. 5066, Cattaraugus County, 2.94 miles; Falconer Village Road No. 5067, Chautauqua County, 1.06 miles; Norwich Village Road No. 5057, Chenango County, .51 mile; Keeseville-Au-sable Chasm Road No. 5056, Clinton County, 2.28 miles; Homer Village Road No. 5068, Cortland County, 2.01 miles; Keeseville Village Road No. 859, Clinton and Essex Counties, 1.24 miles; Cortland-Truxton Road No. 738, Part 1, Cortland County, 6.51 miles; Delaware River Road No. 145-R, Delaware County, 1.00 mile; Williamsville Village Road No. 5061, Erie County, 1.08 miles; State Farm Road No. 525-A, Erie County, .59 mile; Hamburg Village Road No. 862, Erie County, .97 mile; Blasdell Village Road No. 863, Erie County, 1.06 miles; Aurora-Glenwood Road No. 866, Section 1, Erie County, 2.01 miles; Aurora-Glenwood Road No. 751, Section 2, Erie County, 7.07 miles; Norwich-Village-North Road No. 5065, Fulton County, 2.43 miles; Herkimer Village Road No. 5060, Herkimer County, .77 mile; Middleville Village-Newport Village Road No. 5064, Herkimer County, 1.57 miles; Fultonville Village-Fonda Village Road No. 864, Montgomery County, .90 mile; Niagara Falls-Buffalo Road No. 5063, Part 1, Niagara County, 2.50 miles; Whitesboro Village Road No. 5069, Oneida County, 1.60 miles; Scotts Corners-Burnside Road No. 414, Orange County, 3.54 miles; Oak Orchard Road No. 393, Part 2, Orleans County, 3.61 miles; Ballston South-Ballston Lake Road No. 5062, Saratoga County, 2.74 miles; Malta-Saratoga Road No. 611, Saratoga County, 6.64 miles; Lake George Village Road No. 843, Warren County, .17 mile; Lake George Village Road No. 5068, Warren County, 1.48 miles; Clyde-Resort Road No. 860, Part 2, Wayne County, 3.48 miles; Dugway Road No. 861, Part 4, Wayne County, 1.98 miles; Mount Kisco Village Road No. 865, Westchester County, 3.01 miles. S. Percy Hooker is Chn. of Comn., 53 Lancaster St., Albany.

MONROE, N. Y.—We are officially advised that the contract for the construction of cement sidewalks, etc., in the Village of Monroe has been awarded to the JOSEPH SHARPE CONSTRUCTION CO., of Paterson, N. J., at 19 cts. per sq. ft. for sidewalks, 22 cts. for driveways, 50 cts. per lin. ft. for curbs, and 8 cts. per sq. ft. of cobblestone gutter. Fred. J. Knight is Engr.

LITTLE FALLS, N. Y.—The Board of Public Works has awarded the contract for paving North Ann St. to WARREN BROS., at $12,741.

*FORT HANCOCK, N. J.—Bids are asked by C. J. Goodier, Constr. Q. M., until noon, May 31, for constructing roads and walks at Fort Hancock.

*SOMERVILLE, N. J.—Bids will be received until 10 a. m., May 26, by the Board of Chosen Freeholders at Somerville for grading and macadamizing seven miles of road in Somerset County, aggregating 15.18 miles. Joshua Doughty, Jr., 22 Elm St., Somerville, is Engr.

*MONTVALE, N. J.—Bids will be received until 8.30, 9 and 9.30 p. m., May 28, by the Mayor and Borough Council for grading and macadamizing the following roads: Magnolia Ave., .904 miles; Summit Ave., 4,100 ft.; Grand Ave., Middletown and Blue Hill Roads, a total distance of 1,301 miles. H. G. Hering, Jr., Boro. Engr., Hillsdale; John B. Hering, Boro. Clk.

*SUMMIT, N. J.—See item under Sewerage.

CAPE MAY C. H., N. J.—Bids will be received by the Road Committee of the Board of Chosen Freeholders until May 16 for the construction of eleven miles of sea shore road, second section beginning at Crooked Creek, in Cape May, and extending northeast to Beesley's Point. L. M. Rice is County Engr., Wildwood, N. J.

PASSAIC, N. J.—Bids are asked by the Road Committee of the Board of Chosen Freeholders, until 2 p. m., May 17, for repairing, macadamizing, etc., various roads in Passaic County. William A. Mason is Chn.

SCRANTON, PA.—Bids will be received by E. A. Jones, Co. Controller, until May 24 for constructing an improved macadam road in three sections. The total length will be about 21 miles and will consist of a 5-in. macadam base of native stone, with a 4-in. top course of trap rock mostly mixed with bitumen. A. B. Dunning is County Road Engr.

ALTOONA, PA.—See item under Electric Railways.

PITTSBURG, PA.—Bids are asked until noon, May 31, by R. J. Cunningham, County Controller, for improving the Clifton-Bridgeville Road and the Library Extension No. 2 Road in Allegheny County.

BEAVER, PA.—Bids are asked at the office of Joseph W. Hunter, Comr., State Highway Dept., Capitol Bldg., Harrisburg, Pa., until 2 p. m., May 25, for the construction of 6,900 ft. of road, extending from the Steffin Hill Road to a school house in Chippewa Township, in the County of Beaver.

*MECHANICSBURG, PA.—We are officially advised that the following bids were received on May 2, by S. E. Basehore, Secy. of Council, for paving Main St. with sheet asphalt, wood block, vitrified brick, bitulithic, amiesite or Hassam pavements. C. A. Bingham, Carlisle, Pa., is Engr.-in-Charge. The bids cover 23,000 sq. yds. of pavement and foundation, 10,000 lin. ft. of straight curb, 200 lin. ft. corner curbs, and extra concrete and rolled stone. They are given according to the foundation to be

used, (a) concrete foundation, (b) macadam foundation:

Central Construction & Supply Co., Harrisburg, Pa., asphalt (a) $38,445; wood block (a) $[illegible]405; Patton block (a) $46,600; Pennsylvania clay block (a) $47,765; Mack block (a) $48,464; Porter block (a) $48,-930; Metropolitan (a) $53,590.

U. S. Wood Preserving Co., 165 Broadway, New York, wood block (a) $57,784, (b) $55,92[illegible]

Reilly & Fritz, Lancaster, Pa., Patton (a) $84,3[illegible] (b) $61,046; Mack (a) $81,550, (b) $[illegible]250; Metropolitan (a) $83,880, (b) $60,5[illegible] Clymer block (a) $82,715, (b) $59,41[illegible]

Jun[illegible] Paving Co., Empire Bldg., Philadelphia, Pa., bitulithic (a) $51,027, (b) $43,1[illegible]

Filbert Paving & Construction Co., Pennsylvania Bldg., Philadelphia, asphalt (a) $47,2[illegible] (b) $42,639; Filbertine (a) $41,-608, (b) $36,348.

Standard Bitulithic Co., 253 Broadway, bitulithic (a) $52,425, (b) $44,503.

Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, sheet asphalt (a) $45,-901.

Hassam Paving Co., 311 Main St., Worcester, Mass., apposite (a) $37,280; Hassam (b) $[illegible],445.

Charles T. Eastburn, Yardley, Pa., amiesite (a) $40,775, (b) $33,785.

S. B. Leach & Co., Lemoyne, Pa., 10,000 ft. of straight curb, $4,000; 200 ft. of corner curb, $136.

William F. Martin, West Fairview, Pa., brick or Glengary block (a) $50,328, (b) $46,134; Patton (a) $47,066, (b) $42,872; Pennsylvania clay (a) $48,697, (b) $44,503; Mack (a) $47,765, (b) $43,571; Porter (a) $48,114, (b) $43,920; Metropolitan (standard of Clearfield) (a) $47,532, (b) $43,338; Clymer (a) $48,230, (b) $44,037.

Stucker Bros. Construction Co., Harrisburg, Pa., asphaltic macadam (a) $34,717, (b) $30,057; Porter (a) $45,901, (b) $41,-241; Shawmut block (a) $46,367, (b) $41,-707.

WILMINGTON, DEL.—Bids will be received by Francis A. Price, Newcastle County State Highway Comr., Church Bldg., Wilmington, until May 24 for macadam roads in Newcastle County.

BALTIMORE, MD.—Bids will be received by the State Roads Commission, Union Trust Bldg., Baltimore, until noon, May 19, for building 15 sections of state highway, aggregating 50½ miles. John M. Tucker is Chn.

Bids are asked by the Board of Awards until 11 a. m., May 18, to grade, curb, gutter and pave with improved paving Poplar Grove St. (formerly Seventh St.), from Edmondson Ave. to Westwood Ave.

WASHINGTON, D. C.—The contract for paving with asphalt-macadam 13th St. has been awarded to CRANFORD PAVING CO., 2620 E St. N. W., about 11,000 sq. yds. Cost, $10,230.

DANVILLE, VA.—The ATLANTIC BITULITHIC CO., Mutual Bldg., Richmond, Va., has the contract to pave North Main St. with 28,566 sq. yds. of bitulithic.

FAIRFAX, VA.—Bids will be received until May 19 by the Commissioners of Fairfax County, at Fairfax, for constructing about seven miles of macadam road.

FREDERICKSBURG, VA.—Bids will be received until May 18 by the Board of Public Roads, care of M. B. Rowe, Fredericksburg, for constructing about 14 miles of gravel road in Chancellor district and 19 miles of gravel road and ¾ of a mile of macadam road in Courtland district.

PRINCETON, W. VA.—Bids are asked until June 8 for constructing about three miles of standard macadam, tar or asphalt macadam, including such patented pavements as bitulithic and tarvia, with concrete curb and gutter. F. R. Van Antwerp is Ch. Engr. of Paving and Sewers.

WADESBORO, N. C.—Contracts will be let about June 1 for paving to cost about $25,-000. It will be of crushed rock or gravel, covered with tar. Gilbert C. White, of Durham, N. C., is Engr.

FORT SCREVEN, GA.—Bids will be received by the Constructing Q. M. until June 1 for construction of roads, walks, etc.

*JACKSON, MISS.—Bids are asked until 3 p. m., June 7, by the Mayor and Board of Aldermen for the construction of approximately 39,000 sq. yds. of paving; also 10,000 lin. ft. of curb. B. H. Klyce is City Engr.

AGRICULTURAL COLLEGE, MISS.—Bids are asked until 2 p. m., May 17, at the office of the President of the Agricultural College for construction of a macadam road from Starkville to Agricultural College. The road will be 1½ miles long, 24 ft. wide and six inches deep. D. W. Brown is Professor of Civil Engineering.

BEVERLY, OHIO.—J. C. Wonders, State Highway Comr., has authorized the improvement of one mile of highway in Waterford County, to cost about $10,000. The road will be paved with brick.

PORTSMOUTH, OHIO.—The road formerly known as the Portsmouth and Pond Gap Road will be improved at a cost of $12,500.

CINCINNATI, OHIO. — The WARREN BROS. CO., 59 Temple Pl., Boston, Mass., has secured the contract to pave Clifton Ave. with 42,150 sq. yds. of bitulithic.

WESTON, OHIO.—See item under Contract Prices.

SPRINGFIELD, OHIO.—Bids are asked until noon, May 16, by the Director of Public Service, for paving with asphalt, asphalt block, granitoid concrete block or vitrified brick, the roadways Yellow Spring and Pleasant Sts. and McGreight Ave., a total of about two miles. William H. Mahoney is Clerk.

COLUMBUS, OHIO.—The County Commissioners have awarded the contract for the improvement of the Henderson Road, from the Columbus and Worthington Pike to the Perry Township line, to W. O. JEWETT, of Columbus, at $16,969. Other bidders were: Cooke & Cooke, $21,621; H. R. Hess, Columbus, $18,764.

The contract for another section of the Henderson Road in Perry Township has been awarded to J. M. SNOUFFER, of Columbus, at $5,039. Other bidder: H. R. Hess, $5,226.

The contract for a third section of the Henderson Road has been awarded to J. M. SNOUFFER, for $8,362. H. R. Hess bid $9,543.

The County Commissioners have awarded the contract for grading and resurfacing the north approach of the Sandusky St. bridge to J. J. WALCUTT & CO., at $1,102.

YOUNGSTOWN, OHIO.—We are officially advised that bids were received by the Director of Public Works on May 6 for grading Green St., between Byron and Jackson Sts. W. H. McMillin is Clerk. The contract has been awarded to M. P. CONNELLY, of Youngstown.

BLOOMFIELD, IND.—Bids are asked by the Commissioners of Green County until 2 p. m., June 7, for the construction of a free gravel and macadam road in Fairplay Township, known as the William Jones Road, and for the construction of a gravel and macadam road in Stafford Township, known as the William Hunter Road. Peter M. Cook is County Audr.

INDIANAPOLIS, IND.—Bids are asked by Frank S. Gohen, Town Clerk, of Woodruff, a suburb, until May 23, for resurfacing the West, Middle and East Drives of the town. Plans and specifications on file with the Town Clerk.

The Board of Public Works has passed resolutions for the improvement of the following streets by paving the roadways with wooden block, asphalt, bituminous concrete or brick laid on 6-in. gravel concrete foundation from curb to curb, a width of 24 ft.: Linwood Ave., Hoyt Ave., William St., and to open, extend and improve Shurman Ave. and Dearborn Ave. C. A. Schrader is President.

The Board of Public Works has adopted resolutions for street improvements to cost about $75,000. Bids will be received in a short time for resurfacing Maryland St., from Alabama St. to Kentucky Ave., with brick; grading and paving with bituminous concrete Daily St., from Cruse to Pine Sts.; Hawthorn Lane, south of Washington St.; Lasalle St., from Tenth to 16th Sts., and Sherman Drive, from Washington St. to Michigan Sts. Bids will also be received for a quantity of cement walks.

*COLUMBUS, IND.—Bids are asked until 7.30 p. m., June 6, for paving 7,000 sq. yds. on Third St., with brick, asphalt, bitulithic or creosote wood block. Edwin A. Cobb is City Clerk; William H. Rights, City Engr.

HUNTINGTON, IND.—Bids will be received by the Commissioners of Huntington County, until 10 a. m., June 7, for the construction of a gravel road known as the Jonathan Rineason Road. John W. Weaver is County Audr.

WILLIAMSPORT, IND.—Bids are asked by Robert L. Winks, Audr. of Warren County, until 1 p. m., June 6, for the construction of a gravel road in Steuben Township known as the Lewis Young Road.

WILLIAMSPORT, IND.—Bids are asked by the Commissioners of Warren County until June 7 for the construction of 5,316 ft. of gravel road in Liberty and Pine Townships; also for the construction of 21,061 ft. of gravel road in Jordon and Steuben Townships. Robert L. Winks is County Audr.

VERNON, IND.—Bids are asked by the Commissioners of Jennings County until 11 a. m., June 6, for the construction of a pike or stone road in Campbell Township. T. L. Thomas is County Audr.

The Commissioners of Jennings County will receive bids for the construction of 1 1-5 miles of gravel road in Geneva Township. T. L. Thomas is County Audr.

TIPTON, IND.—Bids are asked by the Commissioners of Tipton County until 10 a. m., June 6, for the construction of the following gravel roads: The Shaw Road in Madison Township, 5,294 ft. in length; the Frank Kirby Road in Jefferson Township, 10,480 ft. in length; the Silas M. Kirby Road in Prairie Township, 5,233 ft. in length; the Shuck Road in Prairie Township, 5,246 ft. in length; the Picket Road in Liberty Township, 5,100 ft. in length, and the Zehner stone road in Tipton Township, 5,928 ft. in length. J. F. Barlow is Audr., Tipton County.

FOWLER, IND.—Bids are asked until 1 p. m., June 6, by the Commissioners of Benton County for the construction of the Hess Road in Union Township. The work consists of a grade 27 ft. wide, the same to be paved with crushed blue limestone to the width of nine feet, and to the depth of ten inches, and ditches, culverts and bridges, according to specifications. Estimated cost, $12,000. Lemuel Shipman is County Audr.

PERU, IND.—Bids are asked by the Commissioners of Miami County until noon, June 8, for the construction of the following gravel roads: Road No. 4, in Jefferson Township, known as the Balsbaugh Road, 15,838 ft. in length, estimated cost, $8,083; Road No. 5, in Erie Township, known as the Troxel Road, 5,293 ft. in length, estimated cost, $3,648; Road No. 3, in Washington Township, known as the Shepler Road, 9,693 ft. in length, estimated cost, $10,765; Road No. 2 in Pipe Creek Township, 13,170 ft. in length, estimated cost, $8,523; the township line road known as the Delawter Road, 10,-569 ft. in length, estimated cost, $7,273. Charles Griswold, County Audr.

CRAWFORDSVILLE, IND.—Bids will be received by the Commissioners of Montgomery County, until 10 a. m., June 6, for the construction of a gravel road in Madison Township, known as the Michael Woods Road. Bennett B. Engle is County Audr.

VALPARAISO, IND.—Bids will be received by the Board of Public Works until May 27 for constructing 41 blocks of cement sidewalks. G. F. Stinchfield is City Engr. C. H. Heim is Clerk.

RUSHVILLE, IND.—By order of the Circuit Court the Commissioners of Rush County will soon ask for bids for the paving of Main and Second Sts. with brick.

LOGANSPORT, IND.—Bids will be received until June 9 by Joint Board of Commissioners of Cass and Carroll Counties, at Logansport, for constructing 21,446 ft. of free gravel road on line between Cass and Carroll Counties. George W. Cann, Audr. of Cass County, Logansport; M. G. Hawn, Audr. of Carroll County, Delphi.

KOKOMO, IND.—We are officially advised that bids were received by the Commissioners of Howard County on May 3 for the construction of the Frank Jackson and the Ephraim Miller gravel roads, each three miles in length. A. B. Easterling is County Audr. The contract for both roads has been let to BOOHER & DAVIS, of Windfall, Ind., at $6,950 and $6,560, respectively.

DETROIT, MICH.—The Commoun Council of Detroit has awarded the following contracts: For paving Chicago Boulevard with sheet asphalt to J. A. MERCIER, Hammond Bldg., Detroit, for $30,712; and Holbrook Ave., with cedar blocks, at $8,882. JULIUS PORATH, Michigan Ave. and P. M. R. R., was awarded the contract for paving Dewey Ave. with brick, at $1,638, and Second Ave., with cedar blocks, at $30,141.

The Common Council of Detroit has directed the Board of Public Works, J. J. Haarer, Comr., City Hall, to pave Hillger Ave. with cedar blocks, estimated cost, $5,-363; Calvert Ave., with sheet asphalt, estimated cost, $7,900. Both on concrete foundations with Medina, Borea or other approved curbing.

SUPERIOR, WIS.—The following bids were received on April 22 by the Board of Public Works for paving a portion of John Ave.: (a) bitulithic, (b) brick, and (c) creosoted block: Diffor & Riches (a) $46,972, (b) $41,822, (c) $45,084; Warren Bros. (a) $47,193; E. A. Dahl, 1109 North 16th St., (a) $47,587, (b) $42,609, (c) $44,840; Edward Johnson (a) $48,562, (b) $43,736, (c) $46,331; Russell Construction Co. (b) $43,-278, (c) $44,651; Fielding & Shepley (b) $44,397; E. W. Van Hatten (c) $43,052; Kettle River Quarry Co. (c) $45,011.

CENTERVILLE, IOWA.—Bids will be received until 2 p. m., May 13 (postponed from May 2), for 25,939 sq. yds. of brick pavement on 5-in. concrete foundation and cement filler; 20,910 lin. ft. combined curb and gutter. Hall & Adams are City Engrs., Centerville.

CORNING, IOWA.—We are officially advised that the City Council of Corning has passed resolutions of necessity for 35,000 sq. yds. of brick paving. Theodore S. De Lay, of Creston, Iowa, has been appointed Engr.-in-Charge.

BILLINGS, MONT.—Bids will be received until June 7 by the City Council for creosoted block pavement, as per Resolution No. 273, about 22,644 sq. yds.; also vitrified brick pavement, as per Resolution No. 274, about 32,040 sq. yds. J. D. Matheson is City Clk.

MANHATTAN, KAN.—Bids will be received until May 24 for about 12,200 sq. yds. of paving on a 5-in. concrete base. Bids will be taken on brick block, wood block, concrete, asphalt or bituminous concrete. C. M. Buck is City Engr.

ST. LOUIS, MO.—Bids are asked by the Board of Public Improvements until noon, May 20, for improving various streets in St. Louis. Total estimated cost, $385,000. Maxime Reber is Pres.; W. B. Dryden, Secy.

FORT WORTH, TEX.—The TEXAS BITULITHIC CO., Praetorian Bldg., Dallas, Tex., has been awarded a contract by this city for 25,557 sq. yds. of bitulithic.

*CLINTON, OKLA.—We are officially advised that the city received the following bids on May 3 for the construction of approximately 67,000 sq. yds. of asphalt paving with 5-in. concrete base, together with the necessary grading, storm sewers and so forth; also 20,000 lin. ft. of concrete curb and gutter combined, 5,000 lin. ft. of concrete curb and 5,000 lin. ft. of concrete gutter. J. L. O'Hearn is City Engr.: Cleveland Trinidad Paving Co., 420 Lakeside Ave. N. E., Cleveland, Ohio, $192,026; HERMAN CONSTRUCTION CO., St. Louis, Mo., $176,-669 (awarded contract); Warner-Quinlan, Syracuse, N. Y., $192,089; Barber Asphalt Paving Co., New York, $198,399.

OKLAHOMA CITY, OKLA.—Bids are asked until 8 p. m., May 16, by Bob Parman, City Clerk, for paving various streets in Oklahoma City.

YOUNGSTOWN, WASH.—The County Commissioners at Seattle have awarded the contract for constructing five miles of country road south of Youngstown to J. T. DONALDSON & CO., at $18,519.

ELLENSBURG, WASH.—The City Council has awarded a contract to D. A. WILLIAMS Co., at $140,179, for asphalt paving in this city. G. N. Miller is City Engr.

WENATCHEE, WASH.—We are officially advised that bids were received by Sam R. Sumner, City Clk., on May 3 for grading, curbing and paving with brick, creosoted wood block, asphalt or other suitable material. All bids were rejected. The Engineer's estimate was $73,654.

PORTLAND, ORE.—The WARREN CONSTRUCTION CO., Beck Bldg., Portland, has secured the contract for 67,570 sq. yds. of bitulithic, and the PACIFIC BRIDGE CO., Mohawk Bldg., Portland, for 65,000 sq. yds.

GRANTS PASS, ORE.—The WARREN CONSTRUCTION CO., Beck Bldg., Portland, Ore., has secured a contract for 25,000 sq. yds. of bitulithic.

SAN FRANCISCO, CAL.—Marsden Manson, City Engr., estimates that $750,000 will be required for improving various streets under contemplation.

MONTREAL, QUE.—The streets which are to be paved this summer have definitely been decided upon by the Board of Control as follows:

With asphalt—Drummond St., from Dorchester St. to St. Catherine St.; St. Louis St., from Berri St. to Bonsecours St.; Peel St., from St. Catherine St. to Sherbrooke St.; St. Mark St., from Dorchester St. to 400 ft. south of Sherbrooke St.; Duluth Ave., from St. Lawrence to Park Aves.; Mackay St., from Dorchester to Sherbrooke Sts.; Prefontaine St., from St. Lawrence Boulevard to Lorne Ave.

With Scoria Blocks.—St. Alexander St., from Craig to St. Catherine Sts.; St. Denis St., from Mount Royal Ave. to Carriere St.; Dufferin St., from Lafontaine Park to Mount Royal Ave.; Duluth Ave., from St. Andre St. to St. Lawrence Boulevard; St. Hubert St., from Sherbrooke St. to 200 ft. north; Iberville St. at the subway; St. Lawrence Boulevard, from Pine St. to Mount Royal Ave.; Notre Dame St., from G. T. R. bridge to St. Elizabeth du Portugal St.; Ontario St., from St. Lawrence Boulevard to Bleury St.; Mount Royal Ave., from Papineau to St. Hubert Sts.; Rachel St., from Laval to Esplanade Aves.; Lagauchetiere St., from Beaver Hall Hill to Cathedral St.

With Granite Blocks.—Canning St., from William to Notre Dame Sts.; Delorimier Ave., from St. Catherine to Ontario Sts.; Guy St., from Notre Dame St. to G. T. R. tracks; Iberville St. at the subway; Lagauchetiere St., intersection at Beaver Hall Hill; Lagauchetiere St., from Cathedral to Windsor Sts.; Papineau Ave., from St. Catherine to Ontario Sts.; St. Patrick St., from Island to Charlevoix Sts.

Compressed Asphalt Blocks.—St. Hubert St., from 280 ft. north of Sherbrooke St. to Roy St.

NIAGARA FALLS, ONT.—Bids are asked until noon, May 17, for constructing a macadam roadway with the necessary drainage and culverts, being for Section 2-A, 14,000 ft.; Section 2-B, 15,100 ft.; Section 3-A, 8,300 ft., and Section 3-B, 8,400 ft., commencing at Slater's Dock and extending to Miller's Creek along the Niagara River. John H. Jackson is Supt., Queen Victoria, Niagara Falls Park, Niagara Falls, Ont.

TORONTO, ONT.—Bids are asked until noon, May 17, by the Board of Control for various kinds of pavement and constructing sidewalks on certain streets in Toronto. G. R. Geary, Mayor, is Chn. of Bd.

ST. BONIFACE, MAN.—A contract has been let to BITULITHIC & CONTRACTING, LTD., Empress Block, Winnipeg, Man., for 50,000 sq. yds. of bitulithic.

*WINNIPEG, MAN.—Bids are asked until 11 a. m., May 19, by the Board of Control for the construction of approximately 97,000 sq. yds. of asphalt pavements on concrete foundation. M. Peterson is Secy.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

NEW BEDFORD, MASS.—The BENJAMIN F. SMITH CO., 22 Macon St., Pawtucket, R. I., has been awarded contract to erect the buildings for the Quisset Mfg. Co., at Hastings Wharf, it is stated. The buildings are to be of brick, steel and wood mill construction, concrete foundations. Estimated cost, $450,000. Charles R. Makepeace & Co., 430 Butler Exchange Bldg., Providence, R. I., are Engrs.

J. J. PRINDIVILLE & CO., of South Framingham, Mass., have secured contract to erect seven buildings of brick, steel and wood mill construction as an addition to the Kilburn Mill. Estimated cost, $250,000. Charles R. Makepeace & Co., 430 Butler Exchange Bldg., Providence, R. I., are Engrs.

The contract to erect the plant for the Neild Mfg. Co., of brick, steel and wood mill construction has been awarded to J. W. BISHOP CO., Worcester. Estimated cost, $375,000. Charles W. Praray, Times Bldg., New Bedford, is Engr.; John Neild is Gen. Mgr.

SPRINGFIELD, MASS.—The Springfield Street Railway Co. expects to let contracts this month for the construction of a car house and repair shop in Springfield. George C. Towle is Gen. Mgr.

The Pelley Toilet Paper Co., of Fulton, N. Y., will open a factory in Springfield. The company will erect a building about 50 × 100 on land on Logan St., on the Highland division of the New York, New Haven & Hartford R. R. The company is capitalized at $50,000 and William G. A. Pelley, of this city, is Pres. Archibald Ladner, of Springfield, is a Director.

CLINTON, MASS.—The J. W. BISHOP CO., 109 Foster St., Worcester, Mass., has secured contract to erect the 5-story reinforced concrete and brick fireproof Armory spinning mill, 125 × 412 ft., for the Lancaster Mills; also for a 6-story section, 110 × 125 ft. Estimated cost, $250,000. Knight C. Richmond, Baningan Bldg., Providence, R. I., is Engr.

PROVIDENCE, R. I.—BENJAMIN F. SMITH CO., 22 Mason St., Pawtucket, has secured contract to erect a yarn mill for Gerald Cooper, to be 2-story, brick, 53 × 110 ft. There will be a 1-story boiler house also. Cost, $20,000.

PAWTUCKET, R. I.—Plans for the proposed lace plant of the Seekonk Lace Co., to be located in Darlington, have been filed at the office of the building inspector.

NEW BRITAIN, CONN.—The North & Judd Mfg. Co., 400 East Main St., New Britain, makers of saddlery hardware, is having plans drawn for an addition, 70 × 94 ft., to its annealing department and an addition, 60 × 105 ft., to the brass foundry. Each structure will be of brick, one story high, with steel truss roof and bluestone trimmings. Oldershaw & McKernan are Archs.

GLOVERSVILLE, N. Y.—The Fonda, Johnstown & Gloversville R. R. Co. expects to build an addition to its car house in Gloversville. W. H. Collins is Gen. Mgr.

NEW YORK, N. Y.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, has been awarded the general contract by Arbuckle Bros. for the construction of a 10-story and basement sugar warehouse, 206 × 200 ft., located at Plymouth and Joy Sts., Brooklyn. This building is to be of reinforced concrete throughout. William Higginson, 13 Park Row, New York, is Arch. Work to be started at once.

JAMESTOWN, N. Y.—The Crown Metal Furniture Co. contemplates erecting a 4 or 5-story brick and steel building, 150 × 300 ft. David Hillstrom is Secy.

NEW BRIGHTON, PA.—The Pittsburg Machine Co., of New Brighton, hae given the contract to the R. B. McDANEL CO., 11th St., Beaver Valley, Pa., for an addition to the factory building on lower Penn Ave. This addition will be occupied by the Standard Specialty & Tube Co. In addition to the new buildings several other improvements to the plant are contemplated, among which are an electric light plant, a complete steam heating system and a sprinkler system for fire protection. Work on the new building will commence at once and be completed as soon as possible.

CHESTER, PA.—A manufacturing plant will be built on a tract of land on the Delaware River, at the state line, between Pennsylvania and Delaware. It will be erected by the General Chemical Co. of the United States, 25 Broad St., New York, which is capitalized at $25,000,000. The ground where the new manufacturing concern will be built is the old Ford Estate. It is south of Chester and is just below the borough of Marcus Hook. There are 80 acres in the tract which is bounded on the north by the plant of the Bear Creek Oil Co., and on the south by the plant of the Texas Oil Co. The Post road is on the northwest and the Delaware River is on the southeast. Title to the property has been taken by William H. Nichols, Jr., of New York, a member of the Board of Directors of the General Chemical Co. He has also obtained an option on the 75-acre tract of J. L. Green, on the opposite side of the Post road.

PHILADELPHIA, PA.—The Curtis Publishing Co. has decided to erect a larger building at Sixth and Walnut Sts. than was first contemplated. The additional expenditure amounts to $575,000. The permit was granted to DOYLE & CO., 1519 Sansom St., who have the contract for the rest of the building. According to the plans of Frank C. Roberts & Co. and Edgar W. Seeler, Archs., Stephen Girard Bldg., the structure will be ten stories high and will measure 146.8 × 87.10 ft. It will be situated on the south side of Sansom St., west of Sixth St., and will be on the site of the old type foundry, which was recently demolished.

FORD CITY, PA.—Work is to be started at once rebuilding the burned portion of the Ford City plant of the Pittsburg Plate Glass Co. Fire recently destroyed the cast house of the factory and caused a loss estimated at between $300,000 and $400,000. The Pittsburg offices of the company are in the Frick Bldg.

BALTIMORE, MD.—We are officially advised that a contract has been let to JAMES STEWART & CO., 30 Church St., New York, to construct a 38-stall round-house of reinforced concrete for the Pennsylvania R. R. Co. at Baltimore, Md. A. C. Shand is Ch. Engr., Philadelphia, Pa.

BALTIMORE, MD.—Work will commence soon on the proposed 3-story brick factory to be built for the Rennous-Kleinle Co., at 848 Frederick Ave., at a cost of $12,039. The contract has been awarded to EDWARD WATTERS & CO., 532 St. Paul St.

The Southwestern Broom Mfg Co. will establish a branch factory in this city. The headquarters of the company are at Evansville, Ind. A site for the factory has been secured on the block between Third and Toone Sts., on the Pennsylvania R. R. tracks at Canton.

The loss by fire at Baugh & Sons chemical works, foot of Clinton St., Canton, probably will amount to about $75,000. Work of reconstruction will begin at once. Benjamin H. Brewster is Vice-Pres.

GRAFTON, W. VA.—The Grafton Traction Co. expects to build a car house in Grafton during the summer. George L. Hartley is Gen. Mgr.

ATLANTA, GA.—A 5-story addition to the large plant which they now own is contemplated by the owners of the Fulton Bag & Cotton Mills. The new building will cost approximately $100,000. Plans for the building have been submitted to the building inspector and if he approves them the work on the building will be begun at once. The building will house machinery to act as a supplement to the bag department of the mill. It will front 100 ft. on South Boulevard and 60 ft. on Tennille St. It will be of the same general order of construction as the present building, of brick, mill construction.

CINCINNATI, OHIO.—An automobile manufacturing plant, to cost $100,000, exclusive of the land, will be built at Winton Pl. by the Schacht Mfg. Co., 2727 Spring Grove Ave., Camp Washington.

CLEVELAND, OHIO.—The Building Department soon will issue a permit for a $75,000 addition to the plant of the Warner & Swasey Co., on Carnegie Ave., S. E., it is stated.

A permit has been issued for the erection of a $51,000 building for the Upson Nut Co., in the flats.

COLUMBUS, OHIO.—The National Glove Co., of Columbus, Ohio, has had plans and specifications prepared by Stribling & Lum, Archs., 85 North High St., for a factory building to be erected at 19th and Main Sts.

CANTON, OHIO.—The Canton Sheet Steel Co., incorporated with an authorized capital stock of $500,000, will soon begin the erection of a steel plant in Canton. The industry is headed by Pittsburg capitalists. The site for the plant has been acquired.

SANDUSKY, OHIO.—The Farrell-Cheek Steel Foundry Co. has been incorporated to manuafcture steel castings for automobile parts. Herbert Farrell is Pres. The contract for foundry and office building has been let to G. WILLIAM DOERZBACH, of this city, for general work. The contract for structural steel and iron has been let to T. H. BROOKS & CO., of Cleveland. The Osborn Engineering Co., Osborn Bldg., Cleveland, are Consult. Engrs.

GOSHEN, IND.—The Oswald Motor Works Co. has ordered plans for the erection of a brick addition to its plant, 165 × 60 ft.

The Goshen Buggy Top Co. has decided to build an addition to its present plant. Plans will be ready for bidders in a short time.

The Western Rubber Works Co. is preparing to build an addition to its plant in this city. The estimated cost of building and equipment is $50,000.

SOUTH BEND, IND.—The George Cutter Co., Notre Dame and Division Sts., contemplates erecting a pressed brick and steel foundry, 242 × 145 ft., at Notre Dame St. and Grand Trunk R. R. W. W. Schneider is Arch., 110 W. Jefferson St.

SOUTH BEND, IND.—The Stephenson Mill Co. has ordered plans for an addition to its plant. The estimated cost is $150,000. Bids will be called for soon.

The Vacuum Ice Engineering Co. is preparing to erect an artificial ice plant here and will make a specialty of erecting plants elsewhere. The company has been incorporated with a capital of $100,000.

DECATUR, IND.—The H. Knapp Implement Co. is preparing to erect a 3-story stone and brick structure. Bids will be asked for about June 15.

TERRE HAUTE, IND.—The Terre Haute, Indianapolis & Eastern Traction Co. is preparing plans for a car house, to be built at West Washington St. The structure will be for the exclusive use of interurban cars and when it is completed the repair work of the whole system will be done at that point. The plans for the building are now in course of preparation.

EVANSVILLE, IND.—The Vulcan Steam Shovel Co., of Toledeo, Ohio, will build a $1,000,000 plant in this city, and work will be started at once. The Vulcan Company will abandon its plant at Toledo.

SAGINAW, MICH.—The Saginaw Sheet Metal Works, A. B. Lewis, Gen. Mgr., 515 Tuscola St., will soon take bids for a 1-story, 120 × 27 ft., brick and cement factory. Cost, $30,000.

DETROIT, MICH.—The Cass Motor Truck Co., John T. Turnbull, Mgr., Moffat Bldg., Detroit, has been incorporated, capitalized at $300,000, and as soon as a site can be selected the company will erect a factory for the manufacture of commercial wagons.

Albert Kahn and E. Wilby, Archs., are preparing plans and specifications for a machine shop, one story, 84 × 240 ft., and 96½ × 740ft., for the Ford Motor Co., James Courzens, Mgr., Piquette Ave. and Beaubien St., Detroit. Reinforced concrete, concrete roofing, metal skylights, structural iron and electrical fixtures will be used in construction. Cost, $70,000. Also for a service building, three stories and basement, 100 × 100 ft., for the Ford Motor Co. The architects will take figures soon. Cost, $40,000.

Thomas J. Corcoran, of Cincinnati, Ohio, has let the general contract for a 3-story factory, 325 × 100 ft., to be located in Detroit, to W. E. WOOD, of Flint, Mich., at $60,000.

MOUNT PLEASANT, MICH.—Isaac Erb, Arch., White Bldg., Port Huron, Mich., has prepared plans and specifications for a 4-story and basement factory, 34 × 104 ft., for the E. B. Miller Chicory Co., Mt. Pleasant, Mich. Construction will be of brick and reinforced concrete. Cost, $18,000.

PLAINWELL, MICH.—Dan J. Albertson, Kalamazoo, Mich., has awarded the general contract for the proposed paper plant for the Michigan Paper Co., of Plainwell, Mich., to HAUSEN, OWEN & AMES CO., of Grand Rapids, Mich. Cost, $300,000. Noted last week.

NORTH CHICAGO, ILL.—The Chief of the Bureau of Navigation, Navy Dept., Washington, D. C., has accepted the bid of the WESTON & CAMPBELL CO., 53 South Clinton St., Chicago, Ill., for constructing a refrigerating and ice plant at the naval training station, Great Lakes, North Chicago. Cost, $13,489.

MOLINE, ILL.—Wreckers will start next week on the work of tearing down the 1-story corrugated iron building that stands in the court immediately west of the Deere & Co. main office building to make way for an 8-story structure to be used for factory purposes. Ground dimensions of the new building are 80 × 240 ft., and the approximate cost is $175,000. The LEONARD CONSTRUCTION CO. will erect the building, which will be completed by Oct. 1. The building will be of reinforced concrete and the mushroom system of construction, which eliminates heavy beams and ceilings, will be followed. The walls, which will be 13 ins. in thickness, will be of red brick. There will be 175,000 ft. of floor space in the building.

GRAND RAPIDS, WIS.—See item under Buildings.

FOND DU LAC, WIS.—The FREDERICK A. LITTLE CO., of this city, has been awarded the contract for building the creamery building to be built by the Galloway-West Co., adjoining the present cold storage plant. The new building will be 32 × 72 ft., two stories and basement, with solid brick walls, reinforced-concrete floors, stairs, etc., shower baths.

MILWAUKEE, WIS.—The Milwaukee Machine Tool Co. has increased its capital stock from $20,000 to $75,000, and is planning the erection of a new plant. George Douglas, Pres.

The Hirshberg-Williams-Washburn Co., Archs., are preparing plans for a 5-story factory building to be built by the Hurley-Davidson Motor Co., at 38th and Chestnut Sts., of reinforced concrete, brick filled. The structure will have 22,000 ft. of floor space. Cost, $25,000.

TRIPOLI, IOWA.—The Shores Remedy Co. contemplates erecting a 3-story reinforced concrete fireproof buildings, 120 × 140 ft. Probable cost, $75,000.

TOPEKA, KAN.—David I. Davis, Arch., of Chicago, Ill., is preparing plans for a 7-story, reinforced concrete cold storage plant to be erected for the Charles Wolff Packing Co., of Topeka.

CHEYENNE, WYO.—Bids are asked by Capt. V. K. Hart, Constr. Q. M., until 9:30 a. m., May 23, for constructing a laundry at Fort D. A. Russell, Wyo. The bids received for this work on April 13 last were considered excessive and were rejected.

*FORT D. A. RUSSELL (Cheyenne post-office), WYO.—Bids are asked by Capt. V. K. Hart, Acting Q. M., Keefe Hall, Cheyenne, until 9.30 a. m., May 23, for the construction, plumbing, wiring for electric motors and lights, electric fixtures, furnishing and installation of laundry machinery and equipment, boiler, feed pump, etc., for one laundry. Plans No. 234-B, Fort D. A. Russell, Wyo.

ST. LOUIS, MO.—The American Stove & Foundry Co. has applied for a permit to build its proposed $225,000 group of factory buildings at King's Highway and Daggett Ave. There will be six buildings, including the boiler house.

FORT SAM HOUSTON, TEX.—Bids are asked by P. W. Guiney, Q. M., until 11 a. m., June 4, for the construction, etc., of a pumping, ice and ice storage plant, and of a post laundry, with all laundry machinery complete, at Fort Sam Houston, Tex.

HOUSTON, TEX.—Ground has been broken in the Southern Pacific yards near the Clark St. road in the Fifth Ward for the erection of a car icing plant, which will handle upon contract all icing of cars for the Harriman lines in Texas. This plant is being erected by the Transit Ice Co., a local organization formed especially to handle the icing of the Southern Pacific. The company has secured a grant of 600 ft. of track frontage and the storage capacity of the plant to be erected will not be less than 100 tons. The equipment will be run by electricity and will be ample to ice 15 cars at one time, the work being completed within 15 minutes. The capacity of the plant will be limited only by its ice capacity and, with the rapid facilities for loading and unloading ice, the work can go on continuously. The plant will not manufacture ice, having capacity for storage only. The company has arranged with the Southern Pacific Co. to ice 15 cars without shifting, and will have the exclusive icing of the company's cars at this point. W. H. Kirkland is Pres. and is associated with Jeff Gibbons and H. B. Williams.

QUEBEC, QUE.—The Quebec Railway, Light, Heat & Power Company, Ltd., expects to place contracts for building a car house next to its present car house in St. Sauveur. It will have a storage capacity of 50 cars and will contain repair, paint and carpenter shops. C. E. A. Carr is Gen. Mgr.

MONTREAL, QUE.—A flour mill, with a daily capacity of 2,500 bbls. will, it is stated, be built on the Lachine Canal bank near the foot of Atwater Ave., the property being now owned by Mr. G. A. Grier, of the lumber firm of G. A. Grier & Co., the senior partner being one of the leading promoters of the proposed milling concern. With this comes the announcement, according to the Montreal "Gazette,)' that Lieut-Col. Labelle, who has been connected with the Ogilvie Flour Mills Co., and T. Williamson, the secretary of the company, have resigned and will join the new firm. The cost of the mill will be in the neighborhood of $300,000, and the capital about $2,000,000.

WINNIPEG, MAN.—The Ogilvie Flour Milling Co. has taken out a permit for the erection of an addition, four stories high, on the oatmeal building. The construction is to be of brick and concrete. Cost, $10,500.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

GRADING.—Altoona, Pa.—See item under Electric Railways.

PIER WORK.—Pentwater, Mich.—Bids will be received until 3 p. m., June 3, by Maj. C. S. Riche, Corps Engrs., U. S. A., Grand Rapids, Mich., for repair of piers at Pentwater.

LAKE.—Boonville, Ind.—The FOSTER & RAISER CONSTRUCTION CO., of Union City, Ind., has been awarded the contract for the construction of a new city lake, at $18,865.

DITCH.—Lagrange, Ind.—Contract for construction of the Prough ditch was awarded to CLYDE A. WALB, of Lagrange, at $12,622. The contract requires that the ditch must be completed by April 1, 1911.

ROCK.—New Orleans, La.—Bids will be received until May 25 by Maj. H. Burgess, Corps Engrs., U. S. A., 3338 St. Charles Ave., New Orleans, for furnishing about 50,000 tons of rock for Kempe and Giles Bends.

DRAINAGE DITCHES.—Santa Ana, Cal.—Bids will be received for the construction of 15 miles of drainage ditches (100,000 cu. yds.), near Santa Ana, until May 21. Max Robbins is Secy., and S. H. Finley, Engr., Delhi Drainage District, Santa Ana.

EMBANKMENT.—Grand Rapids, Mich.—ALBERT PRANGE of Grand Rapids, has secured contract for building flood embankment south of Wealthy Ave., at both sides of Grand River, at $83,310. There will be about 180,000 cu. yds. of excavation work.

*LOCK GATES.—Kansas City, Mo.—Bids were received on April 25 by Maj. Edward H. Schulz, Corps Engrs., U. S. A., for manufacture and delivery of two pairs lock gates for Lock No. 1, Osage River, Mo. Contract was let to the PENN BRIDGE CO., Beaver Falls, Pa., at $5,965.

RIPRAP.—Chicago, Ill.—Bids were received on April 22 by John J. Kemberg, Chn. Pub. Wks., for furnishing, delivering and unloading riprap stone during the period beginning June 1, 1910, and ending Sept. 30, 1911. Bids were rejected and new bids probably will be readvertised later.

DAM.—Austin, Tex.—The formal contract between the city of Austin and the DU-MONT-HOLMES STEEL CONCRETE CO., of Chicago, for the reconstruction of the Austin dam was signed on April 27. J. C. Dumont, Pres. of the construction company, signed the contract for that corporation.

LEVEE.—Cincinnati, Ohio.—Bids were received on April 20 by the Commissioners of Hamilton County, under specification No. 25, for improvement of Newton levee from south end of bridge to north end of cement sidewalk, a distance of about 1,500 ft., Anderson Township. Contract was awarded to WM. KELLER, Madisonville, Ohio, at $5,218.

SEATS.—New York, N. Y.—Bids were received by the Park Board on April 25, for furnishing all the labor and materials necessary to manufacture and set up 200 stationary seats on Ocean and Eastern Parkways in the Boro. of Brooklyn. Lowest bidder was Otto Metz, 119 Palmetto St., Brooklyn, at $3,270.

STEAMERS.—Baltimore, Md.—The Merchants' & Miners' Transportation Co., of Baltimore, has awarded contracts for two modern single-screw steel coastwise steamships, the successful bidder being the NEW YORK SHIPBUILDING CO., of Camden, N. J. The vessels will be built for passengers and freight for the Baltimore-Savannah-Jacksonville line.

*DREDGING.—New York, N. Y.—Bids were received as follows on April 26 by Col. Wm. T. Rossell, Corps Engrs., U. S. A., Army Bldg., New York, for dredging in Passaic River, N. J. (about 39,000 cu. yds.): INTERNATIONAL CONTRACTING CO., 17 Battery Place, New York, 50 cts. per cu. yd. (awarded contract); P. Sanford Ross, 277 Washington St., Jersey City, 75 cts.

RAILINGS, ETC.—New York, N. Y.—Bids were received by the Department of Docks and Ferries on May 4 (Contract No. 1213), for furnishing all the labor and materials required for preparing for and constructing railings, gates and stairways in the ferry house at St. George, Staten Island, Boro. of Richmond. Contract has been awarded to GEO. HILDEBRAND, 38 Park Row, at $10,329.

DRAIN.—Clarion, Iowa.—Bids received on May 2 by E. M. Callender, County Audr., Clarion, for constructing ditch No. 43, near Rowan, were considered excessive. New bids will be received until June 15. Bids will be considered for both clay and cement tile. Work is to begin on or before June 1, 1910, and be completed on or before Jan. 1, 1911. It is divided into 19 sections. Geo. L. Mechem is Engr., Clarion.

RAILROAD TRACK SCALE.—North Chicago, Ill.—Bids will be received until noon, May 25, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for one railroad track scale at the U. S. Naval Training Station, North Chicago. The scales desired are to have a 48-ft. platform and to be of 100 tons capacity, capable of determining weights in multiples of 20 lbs. up to and including 200,000 lbs.

REPAIRING FERRY STRUCTURES.—New York, N. Y.—Bids were received by the Department of Docks and Ferries on May 2 (Contract No. 1221), for furnishing all the labor and materials required for reconstructing and repairing the ferry structures at the foot of Roosevelt St., East River, Boro. of Manhattan. Low bidder was the New York State Construction Co., 78 Broad St., New York, at $34,227.

DRAINAGE DITCHES.—St. Paul, Minn.—The State Drainage Board has awarded contract to O. F. DOYLE, St. Cloud, Minn., at 8.9 cts. per cu. yd., for the construction of drainage ditch No. 89, in St. Louis County, comprising 65,000 cu. yds. Contract for Ditch No. 93, in Aitkin County, was let to the KOHLER CONSTRUCTION CO., Little Falls, Minn., at 7.8 cts. per cu. yd. S. G. Iverson is Secy. of the Board.

*GYMNASTIC APPARATUS.—West Point, N. Y.—Bids were received by the Quartermaster, West Point, on May 6, for furnishing and installing gymnastic apparatus in the new gymnasium, West Point, N. Y., as follows: A. G. Spalding & Bros., Inc., Chicopee, Mass., $9,260; Narragansett Machine Co., Providence, R. I., $7,707 (less allowance for old apparatus which will not be used in the new gymnasium, $7,207).

*DREDGING.—Newport, R. I.—Bids were received by Lieut.-Col. J. C. Sanford, Corps Engrs., U. S. A., Newport, R. I., on April 23, for dredging in New Bedford and Fairhaven Harbors, Mass., as follows: (a) dredging sand, mud, etc., per cu. yd.; (b) bowlders, each; (c) totals: Coastwise Dredging Co., Norfolk, Va., (a) 23.9 cts., (b) $10, (c) $9,605; J. S. Packard Dredging Co., Providence, R. I., (a) 23 cts., (b) $10, (c) $9,295.

CANAL.—Cokeville, Wyo.—Bids were received by S. M. Covey, 233 East First South St., Salt Lake City, Utah, on April 20, for the construction of the Covey canal, near Cokeville, Wyo. Approximate quantities: Excavation of earth, 80,000 cu. yds.; loose and solid rock, 1,600 cu. yds.; earth embankment, 2,000 cu. yds. E. J. Fisher, Rock Springs, Wyo., was lowest bidder, at 22 cts. per cu. yd. for earth excavation, $1.75 for solid rock and $1 for loose rock.

PONTOONS, ETC.—New York, N. Y.—Bids will be received until 11 a. m., May 16, by the President of the Boro. of Manhattan, for furnishing all the labor and material required for (a) building new pontoons and repairing and caulking old pontoons in various free floating baths; (b) general carpentering work in connection with repair-

ing various free floating baths; (c) painting and glazing work in connection with repairing various floating baths.

DOCK, ETC.—Buffalo, N. Y.—JAMES STEWART & CO., 30 Church St., New York, have been awarded contract by Rogers, Brown & Co., of Buffalo, N. Y., for work consisting of a reinforced concrete dock 1,200 ft. long, reinforced-concrete ore storage yard, blast furnace foundations and boiler and engine house. There will be required in this work approximately 18,000 piles and over 60,000 cu. yds. of concrete. Julian Kennedy, Pittsburg, is Engr.

DREDGING.—Duluth, Minn.—Bids were received as follows on April 25 by Lieut. Col. Graham D. Fitch, Corps. Engrs., U. S. A., for dredging Duluth-Superior Harbor (price given per cu. yd., scow meas.): Zenith Dredge Co., Duluth, 14 cts.; Great Lakes Dredge & Dock Co., Chicago, Ill., 15.5 cts.; DULUTH-SUPERIOR DREDGING CO., Duluth, 12.5 cts. (awarded contract). Amount available, $275,000; amount proposed to be expended on this work, $20,000.

*CEMENT.—Wheeling, W. Va.—Bids were received on April 28 by Capt. F. W. Altstaetter, Corps Engrs., U. S. A., for furnishing and delivering about 4,500 bbls. of American Portland cement for Dam No. 19, Ohio River, as follows (per bbl., in sacks): The Thomas D. Prosser Co., Wheeling, W. Va., $1.37; the Superior Portland Cement Co., Cincinnati, Ohio, $1.317; Universal Portland Cement Co., Pittsburg, Pa., $1.43; Alpha Portland Cement Co., Easton, Pa., $1.34; Lehigh Portland Cement Co., Cleveland, Ohio, $1.33 the Atlas Portland Cement Co., New York, N. Y., $1.33.

ROAD OIL, STONE, ETC.—New York, N. Y.—Bids were received on May 5 by Lawrence Gresser, Pres. Boro. Queens, for (A) furnishing and delivering 200,000 gals. of asphalt road oil, to be delivered as directed by the President of the Boro. of Queens within the said borough. Also (B) for furnishing and delivering 8,500 cu. yds. of broken quarry stone and screenings in Boro. of Queens. Bids were as follows: (A) The Standard Oil Co., 26 Broadway, New York, $7,000; The Texas Co., $11,000.

(B) The Clinton Point Stone Co., 115 Broadway, New York, $17,850; Jos. A. Boyce, $18,870; J. E. Conklin, $19,975; Manhattan Trap Rock Co., $19,125.

CONDENSER EQUIPMENT.—Philadelphia, Pa.—Bids were received as follows on May 7, at the Bureau of Yards and Docks, Navy Department, Washington, D. C., for furnishing condensers for turbo-alternators, fire pump and feed-water heater: Norman A. Hill Engineering Co., Philadelphia, $23,730; Camden Heating Co., Camden, N. J., $24,989, $28,382, $24,989, $28,882; J. W. Danforth Co., Buffalo, $24,994, $22,837, $22,315, $21,698; Walworth Mfg. Co., Boston, $24,890; D'Olier Engineering Co., Philadelphia, $17,441, $20,496, $15,942, $15,421; W. K. Mitchell & Co., Inc., Philadelphia, $23,170; Pittsburg Valve Foundry & Construction Co., Pittsburg, $24,800, $25,800, $25,125, $26,125.

RIVER IMPROVEMENT. — Cleveland, Ohio.—Regarding the item in issue of April 28, that "the City Council has adopted the Gahn resolution calling upon the city engineer to prepare plans and estimates for the elimination of Collision and Irishtown bends in the lower Cuyahoga River, an improvement that will mean an expenditure of from $1,500,000 to $1,750,000." Robt. Hoffmann, Ch. Engr. of the City Dept. of Public Service, advises us that "steps taken to date are of a preliminary nature only, and will probably be followed with preliminary plans and approximate estimates of the cost of widening and straightening Cuyahoga River with special reference to the elimination of the so-called Collision and Irish Town bends. The cost of the work along lines suggested will undoubtedly be from $1,500,000 to $2,000,000."

LEVEES, ETC.—Fort Worth, Tex.—The Fort Worth Improvement District No. 1, of Tarrant County, Tex., comprising about 3,000 acres in the city of Fort Worth, subject to overflows of Trinity River, has been favored by vote of the people living in this district and by order of the Commissioners Court of Tarrant County. The plans for the work have been made and adopted. A bond issue of $250,000 has been made and is on the market with a pending offer for their purchase. Bids for the construction of the proposed levees and ditches will be received until June 4. The assessed valuation of the property within the district under present conditions is $1,050,000. The present actual value is $2,500,000. When improved by the work proposed the value of the district will be $5,000,000 at most conservative estimate. Property within the district to the value of $300,000 was destroyed by the last overflow in May, 1908. Robt. G. Johnson, Fort Worth National Bank Bldg., is Chn. of the Board of Commissioners of Dist. No. 1.

BREAKWATER.—Santa Monica, Cal.—The improvements contemplated by the Santa Monica Harbor & Improvement Co., 1509 Ocean Ave., Santa Monica, begin by the construction of a breakwater running parallel to the shore line to a distance out of about 3,500 ft. The breakwater will be in about 32 ft. of water, and will be constructed of two sea-walls running parallel 100 ft. apart and filled in with a sedimentary deposit that forms the bottom of the basin that will be inside the breakwater. The shore line will be bulkheaded in 2 ft. of water at low tide and will consist of concrete piling, reinforced. The outside wall of the breakwater is to project 15 ft. above low water and the inside wall, 10 ft. The average tides at this point are 5 ft. 6 ins., with only five or six rough days in the year. The ocean bottom is level, and clean from any obstruction, and consists of 4 ft. of sedimentary deposit and 6 ft. of hard pan. There has not been any movement of sand at the point of construction for the last 25 years, an anchor which having been lost, has remained in the water with practically the same exposure for 23 years. All plans for this work must be such as will be approved by the Government engineers. The company will receive plans for building this breakwater and the plans accepted will be paid for.

CONTRACT PRICES.

REVETMENT REPAIR.—Grand Haven, Mich.—Bids were received April 29, by Maj. C. S. Riche, Corps of Engrs., for harbor and river improvement and repair of revetment. The bidders were: (A) J. E. Hathaway & Co., Milwaukee, Wis. (recommended for acceptance); (B) Greiling Bros., Co., Green Bay, Wis.; (C) Muskegon Dock & Dredging Co., Muskegon, Mich.; (D) William H. Gillen, Milwaukee, Wis.; (E) M. Rabbitt & Sons, Toledo, Ohio. The itemized bids were as follows:

REVETMENT REPAIRS, GRAND HAVEN, MICH.

	A.	B.	C.	D.	E.
1,635 lin. ft. Cutting down and removing old work	$1.50	$2.50	$3.00	$4.00	$3.00
73,518 lin. ft. Oak piles	.34	.36	.42	.39	.52½
33 M. Oak timber	70.00	65.00	70.00	75.00	55.00
390 M., Pine or Douglas fir	42.00	42.50	45.00	50.00	55.00
5 M., Sheet piles	45.00	45.00	70.00	50.00	55.00
27 M., Plank, for walk	40.00	40.00	45.00	50.00	55.00
59,608 lbs. Drift bolts	.03	.05	.04	.03	.05½
55,232 lbs. Screw bolts	.05	.06	.04½	.04	.05½
51,610 lbs. Angle iron	.05	.07	.06	.04	.05½
33,521 lbs. Tie rods	.03	.06	.04½	.05	.05½
1,178 lbs. Spikes	.04	.05	.05	.05	.05½
127 lbs. Carriage bolts	.05	.06	.07	.05	.05½
1,350 lbs. Pile shoes	.05	.10	.15	.05	.05½
Totals	$55,617	$62,616	$66,852	$67,542	$79,576

DREDGING.—Calumet River, Ill.—Bids were received by Maj. Thomas H. Rees, Corps of Engrs., U. S. A., April 25, for dredging about 700,000 cu. yds. The bidders were: (A) Buffalo Dredging Co., Buffalo, N. Y.; (B) Samuel O. Dixon, Milwaukee, Wis.; (C) Duluth-Superior Dredging Co., Duluth, Min.; (D) The Fitz Simons & Connell Co., Chicago, Ill.; (E) Great Lakes Dredge & Dock Co., Chicago, Ill. (lowest bid recommended for acceptance). The itemized bids were as follows:

DREDGING, CALUMET RIVER, ILL.

	A.	B.	C.	D.	E.
Dredging 445,000 cu. yds. at or near the Forks:					
Disposing on the adjacent shore	....	$0.24	$0.23	....	$0.228
Disposing in 50 ft. of water in lake	....	.28	.28	$0.30	.27
Disposing on shore within 2 miles from mouth of river	....	.23	.24	.25	.228
Dredging 255,000 cu. yds. below the Forks:					
Disposing on the adjacent shore	....	.25	.24	....	.235
Disposing in 50 ft. of water in lake	$0.30	.28	.29	.30	.275
Disposing on shore within 2 miles from mouth of river	.25	.25	.24	.25	.235

SEWER AND PAVING MATERIALS.—Norristown, Pa.—S Cameron Corson, Borough Engineer, advises us that contracts were awarded May 3 for supplies at the following prices: Trap rock, all sizes, $1.10 per ton f. o. b.; castings, 0.01875 cts. per lb., delivered; Portland cement, $1.50 per bbl., less 7½ cts. for bags returned; curbing, reinforced concrete, curved, $1.10 per lin. ft.; curbing, reinforced concrete, straight, 74 cts. per lin. ft.; No. 1 vitrified paving blocks, $21 per M.; No. 1 gutter blocks, $18 per M. Sewer pipe, per lin. ft., as follows: 6-in. standard, 8½ cts.; 10-in. standard, 22 cts.; 12-in. standard, 29 cts.; 15-in. extra heavy, 49 cts.; 18-in. extra heavy, 64 cts.; 20-in. extra heavy, 87 cts.; 22-in. extra heavy, $1.10; 24-in. extra heavy, $1.25; 30-in. standard, $2.25; 36-in. standard, $3.50.

SEWERS.—La Port, Ind.—The Common Council received bids for sewer construction April 25. The proposal of THE INDEPENDENT CONSTRUCTION CO., Terre Haute, Int., was accepted, the itemized bid being as follows: 5,870 lin. ft. 78-in. monolithic sewer complete, $10.41; 3,826 lin. ft. 60-in. monolithic sewer complete, $8.71; 3,885 lin. ft. 54-in. monolithic sewer complete, $7.68; 897 lin. ft. 48-in. monolithic sewer complete, $9.54; 17 manholes complete, $51.75; 21 catch basins complete with connections, $31.25; one diverting manhole, complete, $56.25.

SEWERS.—Manhattan, Kan.—Bids were received May 3 for constructing sanitary sewers in Manhattan, Kan. The bidders were: (A) W. W. COOK & SON, Junction City, Kan. (awarded contract); (B) Katz-Craig, Omaha, Kan.; (C) New State Co., Tulsa, Okla.; (D) Bash & Gray, Joplin, Mo.; (E) E. D. Reed, Clay Center, Kan.; (F) McGuire & Stanton, Leavenworth, Kan. The itemized bids were as follows:

SANITARY SEWERS, MANHATTAN, KAN.

	(A)	(B)	(C)	(D)	(E)	(F)
67,200 lin. ft. furnishing and laying 8-in. vitrified pipe	$0.22	$0.38	$0.30	$0.39	$0.30	$0.38
1,700 lin. ft. furnishing and laying 12-in. vitrified pipe	.40	.43	.45	.44	.45	.42
5,200 lin. ft. furnishing and laying 15-in. vitrified pipe	.60	.43	.60	.68	.75	.70
5,300 lin. ft. furnishing and laying 18-in. vitrified pipe	.90	.85	.80	.90	1.00	.85
1,300 lin. ft. furnishing and laying 24-in. vitrified pipe	1.30	1.75	1.50	1.60	1.50	1.35
6,900 lin. ft. trenching and backfill, less than 6 ft.	.22	.35	.20	.40	.28	.40
17,000 lin. ft. trenching and backfill, 6 to 8 ft.	.33	.40	.30	.43	.40	.45
38,800 lin. ft. trenching and backfill, 8 to 12 ft.	.60	.50	.60	.51	.55	.60
15,800 lin. ft. trenching and backfill, 12 to 16 ft.	.98	.70	.75	.70	.70	.70
1,000 lin. ft. trenching and backfill, 16 to 20 ft.	1.30	.90	1.20	1.10	1.00	.80
2,365 6-in. Ys on 8-in. pipe	.50	.50	1.00	.55	.60	.60
24 6-in. Ys on 12-in. pipe	1.00	.55	1.00	.65	1.00	1.06
200 6-in. Ys on 15-in. pipe	1.00	1.00	1.00	.90	1.50	1.80
48 6-in. Ys on 24-in. pipe	4.00	2.50	2.00	3.00	5.00	4.65
20 cu. yds. concrete	8.00	10.00	8.00	10.00	10.00	12.00
159 manholes, 8 ft. to 18 ft. depth	45.00	40.00	55.00	43.00	70.00	50.00
23 flush tanks	80.00	80.00	80.00	74.00	90.00	80.00
300 ft. furnishing and laying 24-in. c.-i. pipe under railway	4.00	4.00	10.00	4.00	6.00	7.00
28 M lumber left in trenches	30.00	35.00	30.00	30.00	40.00	40.00
1 pumping station	3,000.00	3,000.00	3,500.00	3,125.00	3,000.00	4,500.00
Totals	$88,124	$92,421	$93,936	$95,008	$95,625	$101,687

PAVING.—Weston, Ohio.—Bids were received May 2 for brick paving at Weston, Ohio. The engineers were The Riggs & Sherman Co., Toledo, Ohio. The bidders were: (A) Henry S. Enck, Lima, Ohio; (B) Hennessey & Bro., Piqua, Ohio; (C) O. L. Smith, Columbus Grove, Ohio; (D) Jos. L. Smith, Lorain, Ohio; (E) The J. E. Conley Co., Dayton, Ohio; (F) W. J. Kernan & Co., Dayton, Ohio; (G) Karch & Fishbaugh, Celina, Ohio; (H) Ezra C. Shoecraft, Coldwater, Mich.; (I) Harmon H. Gens, Oak Harbor, Ohio; (J) M. F. O. Sullivan, 145 Oak St., Toledo, Ohio. The itemized bids were as follows:

PAVING, WESTON, OHIO.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1 combination catch basin and inlet	$10.00	$25.00	$25.00	$25.00	$15.00	$23.00	$30.00	$25.00	$15.00	$18.00
5 manholes and covers	15.00	25.00	30.00	30.00	20.00	30.00	45.00	25.00	12.00	18.00
144 lin. ft. 4 × 20-in. stone curb	.50	.45	.45	.45	.45	.45	.45	.45	.36	.50
100 lin. ft. 4 × 14-in. headers	.30	.20	.30	.25	.30	.35	.30	.35	.25	.32
210 lin. ft. old curb redressed	.30	.12	.22	.10	.20	.09	.15	.10	.09	.15
500 lin. ft. old curb relined and reset	.25	.08	.25	.10	.20	.06	.02	.10	.08	.12
48 lin. ft. old headers reset	.25	.10	.24	.20	.20	.06	.15	.15	.05	.10
6,577 sq. yds. pavement on existing gravel										
With Peebles	....	....	1.32	....	....	....	....	....	....	....
With Metropolitan	1.04	1.13	1.32	1.07	1.32	1.40	1.08	1.06	.91	....
With Townsend	1.06	1.15	1.32	1.10	....	....	1.15	....	.96	1.08
With Wassall	1.01	1.10	1.32	1.05	....	1.40	1.10	....	.91	1.06
With Wooster	.98	1.13	1.32	1.04	....	1.40	1.06	....	.94	1.06
With Big Four	.97	1.07	1.32	1.04	....	....	....	....	.88	1.03
With Trimble	....	....	....	....	1.32	1.35	1.15	....	....	1.03
With Deckman-Duty	1.06	1.13	....	1.00	1.30	....	....	....	....	1.08
With Noble	....	1.13	....	1.08	....	1.44	1.13	....	.91	1.08
With Athens	....	....	....	....	....	....	1.14	1.06	....	....
With Minerva	1.04	1.10	....	1.06	....	....	....	1.05	.92	....
With Medal	....	1.13	....	1.09	1.30	....	....	....	....	....
With Nelsonville	....	....	....	....	....	....	....	1.06	....	....
6,577 sq. yds. pavement on 6-in. concrete										
With Peebles	....	....	1.60	....	....	....	....	....	....	....
With Metropolitan	1.54	1.63	1.61	1.63	1.62	1.68	1.63	1.68	1.74	....
With Townsend	1.56	1.65	1.61	1.66	....	1.70	1.70	....	1.76	1.82
With Wassall	1.51	1.60	1.56	1.61	....	1.68	1.65	....	1.71	1.80
With Wooster	1.48	1.63	1.56	1.59	....	1.68	1.61	....	1.68	1.80
With Big Four	1.47	.157	1.62	1.59	....	1.65	....	....	1.71	1.77
With Trimble	....	....	....	....	1.62	1.63	1.70	....	....	1.77
With Deckman-Duty	1.56	1.63	....	1.65	1.60	....	....	....	....	1.82
With Noble	....	1.63	....	1.64	....	....	1.68	....	....	1.82
With Athens	....	....	....	....	....	....	1.60	1.68	....	....
With Minerva	1.54	1.60	....	1.62	....	....	....	1.67	....	....
With Medal	....	1.63	....	....	1.60	....	....	....	....	....
With Nelsonville	....	....	....	....	....	....	....	1.68	....	....
6,577 sq. yds. asphalt filler, per sq. yd.	.25	....	.24	.22	.22	.24	.20	.21	.21	.25
6,577 sq. yds. cement filler, per sq. yd.	.06	.10	.09	.08	.08	.08	.10	.07	.08	.08
6,577 sq. yds. sand filler, per sq. yd.	.03	.06	.06	.05	.04	.06	.03	.04	.05	.03
5 cu. yds. extra concrete, per cu. yd.	5.00	6.00	5.00	6.00	4.00	5.00	6.00	4.00	4.00	5.00
20 cu. yds. extra gravel or stone, per cu. yd.	1.00	1.00	1.50	1.50	1.00	2.00	1.45	1.50	1.45	1.50
Extra excavation, per cu. yd.	.45	....	....	....	....	....	....	....	....	....
12 ft. 8-in. connection, per ft.	.50	.40	.50	.45	.60	.65	.60	.50	.50	.60
50 hrs. common labor, per hour	.20	.20	.22½	.20	.20	.20	.20	.20	.20	.20
20 hrs. skilled labor, per hour	.30	.40	.35	.50	.30	.40	.35	.40	.30	.30
20 hrs. team labor, per hour	.45	.40	.45	.50	.40	.40	.35	.40	.50	.40
6,577 yds. Barrett's No. 6 filler	18	....	....	....	....	....	....	....	....	....
Inlet or catch basins reset	8.00	....	....	....	....	....	....	....	....	....

U. S. POSSESSIONS.

(*denotes that this work is advertised in Engineering News.)

RAILWAY SUPPLIES.—Panama.—Bids will be received until 2 p. m., May 16, by Maj. Wendall L. Simpson, U. S. A., 24 State St., New York, Asst. Pur. Agent, Panama R. R. Co., for furnishing miscellaneous railway supplies, in accordance with terms and conditions contained in circular No. P-285.

*DAMS AND CANAL.—Porto Rico.—Bids will be received until 2 p. m., July 25, by the Porto Rico Irrigation Service, Dept. of the Interior, at Guayama, for the construction of the Carite Dam, 150,000 cubic meters of earth and loose rock; the Toro Negro Dam, 15,000 cubic meters of earth and loose rock; and the Doña Juana Canal, 1½ miles in length. The estimated total cost is about $160,000. B. M. Hall, Ch. Engr.

ENGINEERING SUPPLIES. — Panama.—Bids were received on May 5, by the General Purchasing Officer, Isthmian Canal Commission, for supplying during the period ending June 30, 1911, the quantities needed of steel rails, frogs, switches, switch stands, tie plates, angle bars, rail braces, track bolts and spikes, steel, iron, galvanized roofing, rivets, bolts, nuts, boat spikes, iron and lock washers, chain, wire cable, wire, wire cloth, wire netting, iron and steel pipe, boiler tubes, brass and copper tubing, lead pipe, Babbitt metal, copper, brass, bronze, Muntz metal, yellow metal, banca tin, pig tin, sheet zinc, pig zinc, pig lead, sheet lead, horseshoes, etc. Only the important items are given below and only the lowest bidders on each class:

5,275 gross tons steel rails, Bethlehem Steel Co., South Bethlehem, Pa., $165,371, for Bessemer steel.

210 rigid track frogs, R. C. Hoffman, Baltimore, $14,502; 325,000 railway tie plates, same bidder, $20,150.

50,000 angle splice bars, United States Steel Products Export Co., New York, $18,419; 1,000,000 track spikes, same, $17,300;

a large quantity of sheet steel, various sizes, same, $87,282; steel angles, channels and I-beams, same, $53,890; merchant bar iron or soft steel, same, $90,502; 50,000 sheets galvanized corrugated iron or steel roofing, same, $37,376; standard black wrought-iron and galvanized steel pipe, same, $153,415.

Soft steel billets, Midvale Steel Co., Philadelphia, $17,690.

Cast-iron bell and spigot pipe and fittings, Manning, Maxwell & Moore, New York, $13,442.

Bolts of various sizes, Pittsburg Screw & Bolt Co., Pittsburg, $35,867; rivets of various sizes, same bidder, $12,721.

*CANAL, ETC.—Porto Rico.—Bids will be received by the Porto Rico Irrigation Service, Dept. of the Interior, at Guayama, P. R., until 2 p. m., May 23, for the construction of about 7½ miles of main canal with appurtenant culverts, including unfinished work on schedules 3, 5 and 6 of Specifications No. 1, dated April 28, 1909. The estimated cost is about $40,000. B. M. Hall, Ch. Engr.

EXAMINATIONS.

EXAMINER.—Klamath Falls, Ore.—The U. S. Civil Service Commission announces an examination on July 13-14, at Klamath Falls, Ore., to secure eligibles from which to make certification to fill vacancies as they may occur in the Reclamation Service in the position of Examiner, at $1,800 a year and upward, and Assistant Examiner, at salaries ranging from $1,200 to $1,600 a year. Age limit, 20 to 40 years. Application form 1312.

SURVEYOR.—Philippines.—The U. S. Civil Service Commission announces an examination on June 15, to secure eligibles from which to make certification to fill at least fifty vacancies in the position of Surveyor, at $1,400 a year each, in the Philippine Service, and similar vacancies as they may occur in that service. Field expenses are allowed appointees when absent on duty from their permanent station. It will not be necessary for applicants to appear at any place for examination. Their eligibility for the position will be determined upon the evidence furnished in application Form 375 concerning their education, training and experience. Age limit, 18 to 40 years. Application forms 2 and 375. Applications must be filed prior to closing hour on June 15.

INORGANIC CHEMIST.—Philippines.—The U. S. Civil Service Commission announces an examination on June 8 to secure eligibles from which to make certification to fill a vacancy in the position of Chemist, Bureau of Science, Manila, P. I., at $1,800 a year, and vacancies requiring similar qualifications as they may occur in the Philippine service. It will not be necessary for applicants to appear at any place for examination. Their eligibility for the position will be determined upon the evidence furnished in application and examination Form 375 concerning their education, training and experience. Age limit, 18 to 40 years. Application forms 2 and 375. Applications must be filed prior to closing hour on June 8.

BACTERIOLOGIST AND PATHOLOGIST.—Philippines.—The U. S. Civil Service Commission announces an examination on June 8, to secure eligibles from which to make certification to fill a vacancy in the position of Bacteriologist and Pathologist in the Bureau of Science, Manila, P. I., at a salary of $2,250 a year, and a vacancy in the position of Assistant Professor of Bacteriology and Pathology in the Philippine Medical School at a salary of $2,000 a year, and vacancies requiring similar qualifications as they may occur in the Philippine service. It will not be necessary for applicants to appear at any place for examination. Their eligibility will be determined upon the evidence furnished in connection with application and examination Form 375 concerning their education, training and experience. Age limit, 18 to 40 years. Application forms 2 and 375. Applications must be filed prior to closing hour on June 8.

AXEMAN, INSPECTOR, ETC.—Albany, N. Y.—Examinations will be held by the State Civil Service Commission throughout the State on May 28 for the positions mentioned below. Applications should be filed on or before noon, May 21. Competitors must be at least 21 years of age, and must be citizens and residents of New York State, unless otherwise noted below. Non-residents or non-citizens when admitted, are (except in special cases) subject to the provisions of Civil Service Regulation X, that in case the eligible list contains the names of three or more citizen residents of New York State, they shall be preferred in certification over non-residents and non-citizens.

Axeman. Minimum age, 18 years. Maximum salary, $2 a day. Requirements: Knowledge of arithmetic, elementary mensuration, and beginner's work in engineering office or field work.

Highway Inspector, Onondaga County Service. $85 per month. Open to men residing in Onondaga County only. Candidates must have had two years' practical experience in the construction or maintenance of highways.

Junior Assistant, Engineering Dept., Public Service Commission, First District. $901 to $1,200 a year, with excellent prospects of promotion for efficient employees. It is desired to secure men who have graduated from first-class technical schools, and who have had at least one year's experience since graduation. Applications, however, will be accepted from candidates who will graduate in 1910. Inasmuch as the work of the Commission will probably be very extensive and important during the next two years, a special effort is being made to attract to the service young engineers for whom a special course in drafting and construction experience may be planned, with a view to fitting them for more responsible positions.

N. B.—It is expected that examinations for the following positions will be held in June. Applications may be obtained and filed now: Rodman; Chainman; Engineering Draftsman; Highway Inspector, all counties.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

	Noted in issue of
5-13 Elec. wiring, Ft. Terry, N. Y.	4-21
5-14 Switchboard, etc., Columbus, Ohio	4-28
5-16 Conduit, etc., Winnipeg, Man.	4-28
5-16 Equipment, Lincoln, Kan.	5-12
5-17 Equipment, Allerton, Iowa	5-12
5-20 Elec. light system, Fort Missoula, Mont.	5- 5
5-20 Lighting system, Ft. Dade, Fla.	5- 5
5-21 Power plant, Washington, D. C.	4-21
5-21*Heating apparatus, etc., Toronto, Ont.	5-12
5-23*Elec. light system, Fort Morgan, Ala.	4-28
5-25 Power plant, Fort Caswell, N. C.	5- 5
5-25 Eqpipment, etc., Winnipeg, Man.	5-12
5-26 Boilers, etc., Medford, Okla.	5- 5
5-28 Elec. light system, etc., Fort Bayard, N. Mex.	5-12
5-31 Elec. light system, Fort Crockett, Tex.	5-12
6- 2 Elec. light system, Fort McKinley, Me.	5-12
6- 4 Heating systems, etc., Boston, Mass.	5-12
6- 8 Lighting plant, La Moure, N. Dak.	5-12
6-11 Substation, Charleston, S. C.	5-12
6-11 Piping, etc., Charleston, S. C.	5- 5

Bridges.

5- 6 Substructure, etc., Steubenville, O.	4-21
5-14*Bridges, Jamestown, N. Y.	5- 5
5-14 Bridge work, Cleveland, Ohio	4-28
5-14 Bridge, North Chicago, Ill.	4- 7
5-14 Bridges, Danville, Pa.	5-12
5-16*Bridge, Ypsilanti, Mich.	4-14
5-17 Culverts, Indianapolis, Ind.	5- 5
5-17*Bridge, Philadelphia, Pa.	5- 5
5-17 Bridges, Nevada, Mo.	5- 5
5-17 Bridges, Danville, Ind.	5- 5
5-17 Repairing bridges, Hollidaysburg, Pa.	5- 5
5-17 Bridge, Waterbury, Conn.	5-12
5-18 Bridge, Cameron, Tex.	4-28
5-21 Bridge work, Cleveland, Ohio	5- 5
5-23 Superstructure, Niles, Ohio	5- 5
5-23 Bridge, Hubbard, Ohio	5- 5
5-24 Bridge, Oil City, Pa.	5- 5
5-24 Bridge work, Columbus, Neb.	5-12
5-25*Bridge, Dayton, Ohio	5-12
5-25 Bridge, Van Wert, Ohio	5- 5
5-25 Bridge work, Cleveland, Ohio	4-28
5-26 Bridge work, Arvilla, W. Va.	5-12
5-28 Bridge, Quincy, Ill.	5-12
6- 1 Bridge, McCook, Neb.	5-12
6- 1 Bridge, Gretna, La.	3-24
6- 1 Substructure, Whiterocks, Utah	3-10
6- 3 Bridge, Taylor Falls, Minn.	5-12
6- 6 Bridge, Jeffersonville, Ind.	5-12
6- 6 Bridges, Crown Point, Ind.	5- 5
6-28*Bridge, Winnipeg, Man.	5- 5
7- 5 Bridge, Stevenson, Wash.	5-12

Buildings.

5-13*Post-office, Ottumwa, Ia.	4- 7
5-13*Quarters, Ft. Terry, N. Y.	4-14
5-13 School, Massillon, Ohio	5- 5
5-14 Post-office, Sewickley, Pa.	4-14
5-14 Storehouse, Vallejo, Cal.	4- 7
5-14 Sheds, etc., New York	4-28
5-14 Fire station, Springfield, Mass.	5-12
5-15 Storeh[illegible], Ft. Terry, N. Y.	4-21
5-16 School, New Castle, Pa.	4-28
5-16*Post-office, Shreveport, La.	4- 7
5-16 Plumbing, Belleville, Ill.	4-14
5-16 School, Waterbury, Conn	4-28
5-16 Church, Port Arthur, Tex.	5- 5
5-16*Window screens, Ft. Du Pont, Del.	5- 5
5-16 Schools, New York	5- 5
5-17 Court-house, Forman, N. Dak.	5- 5
5-17 Bakery, Boise, Idaho..(Mfg. Pl.)	5- 5
5-18*Post-office, Centralia, Ill.	4-21
5-19*Post-office, Catlettsburg, Ky.	4-14
5-19 Engine house, New Haven, Conn.	5-12
5-20*Sheds, New Orleans, La.	4-28
5-20 Quarters, Galveston, Tex.	4-28
5-20*Screens, etc., New London, Conn.	5- 5
5-21 Rebuilding, Portsmouth, N. H.	4-14
5-23 Post-office, Delaware, Ohio	4-28
5-23 Laundry, Cheyenne, Wyo. .....(Mfg. Pl.)	5-12
5-23*Laundry, Ft. D. A. Russell, Wyo. .....(Mfg. Pl.)	5-12
5-23 School, New York	5-12
5-24 Quarters, Ft. Leavenworth, Kan.	5- 5
5-25*School, Long Branch, N. J.	5- 5
5-25 Post-office, Griffin, Ga.	4-28
5-26 Post-office, North Yakima, Wash.	4-21
5-26*School, Long Branch, N. J.	5-12
5-27 Barracks, Ft. Winfield Scott, Cal.	5- 5
5-27*Quarters, Ft. Monroe, Va.	5- 5
5-28*Stable, etc., Ft. Meade, S. Dak.	5-12
5-31*Ice plant, Whipple Barracks, Ariz. .....(Mfg. Pl.)	5- 5
5-31*Post-office, Keene, N. H.	4-28
5-31*Storehouse, Whipple Bks., Ariz.	5-12
6- 2 Post-office, Carrollton, Mo.	5- 5
6- 4 Ice plant, Ft. Sam Houston, Tex. .....(Mfg. Pl.)	5-12
6- 4 Laundry, Ft. Sam Houston, Tex. .....(Mfg. Pl.)	5-12
6- 6*Elevators, New York	5- 5
6- 7 Post-office, Fremont, Neb.	4-28
6- 9*Post-office, Middletown, N. Y.	5- 5
6- 9*Plumbing, Madison Barracks, N. Y.	5-12
6-11 Nurses' quarters, New York	5-12
6-13 Boiler plant, Pittsburg, Pa.	5- 5
6-14 Post-office, Asbury Park, N. J.	5-12
6-15 Alterations, etc. San Francisco, Cal.	5-12
6-15 Schools, Magnolia, Ark.	5- 5
7- 1 Plans, New Orleans, La.	3-17

Water-Works.

5-13*Waterproofing, Asheville, N. C.	5- 5
5-14 Well, Glen Gardner, N. J.	5- 5
5-14 Dam, Wilkes-Barre, Pa.	5-12
5-16 Cisterns, Fort Stevens, Ore.	5-12
5-16*Water mains, Steger, Ill.	5- 5
5-17*Piping, New Britain, Conn.	5- 5
5-17*W.-wks. bonds, Stigler, Okla.	4-28
5-18 W.-wks. extension, Gadson, Ala.	4-28
5-18 Water pipe line, Fort Riley, Kan.	4-28
5-18*Boilers, Perth Amboy, N. J.	4-28
5-18 Pipe system, Oakland, Cal.	5- 5
5-18 Water-mains, New York	5- 5
5-19 Cast-iron pipe, Newark, N. J.	5-12
5-20 Filtration plant, Niagara Falls, N. Y.	5- 5
5-23*Boilers, Fort DuPont, Del.	4-28
5-24*Tunnels, etc., New York	5-12
5-25 W.-wks. extension, Dows, Iowa	5-12
5-25 Water-works, Searcy, Ark.	5-12
5-25*Dam, etc., Creede, Colo.	4-21
5-26 W.-wks. impvts., Lorain, Ohio	5- 5
5-26 Reservoir, etc., Riverside, Ala.	5- 5
5-28 Water system, Ft. Ward, Wash.	5-12
6- 1*Dam, Fort Meade, S. Dak.	5- 5
6- 1 Reservoir, North East, Md.	4-14
6- 6 Reservoir, Jacksonville, Fla.	5- 5
6- 7 Reservoir, Waterbury, Conn.	5-12
6-14*Pump station, Detroit, Mich.	4-21

Sewers.

5-12*Sewers, Summit, N. J.	5-12
5-13 Sewers, Cincinnati, Ohio	5-12
5-16 Sewers, Birmingham, Ala.	5-12
5-16 Sewer, Brainerd, Minn.	4-21
5-16*Sewers, Westfield, N. J.	4-21
5-16 Sewers, Bridgeburg, Ont.	5- 5
5-16 Sewers, etc. Morrilton, Ark.	5- 5
5-17 Sewers, Dorranceton, Pa.	5- 5
5-17*Sewers, Bridgeton, N. J.	5- 5
5-17 Sewerage, Sanford, N. C.	5- 5
5-17 Sewer, Paterson, N. J.	5- 5
5-17 Sewers, Belzoni, Miss.	4-14
5-17*Sewer, St. Louis, Mo.	4-28
5-17 Sewage pumping mach., Toronto, Ont.	5-12
5-17 Sewer system, Corliss, Wis.	5-12
5-17 Sewers, Toronto, Ont.	5-12
5-18 Sewers, Toledo, Ohio	5-12
5-19 Sewers, Hartford, Ky.	5-12
5-19 Sewers, Emsworth, Pa.	5-12
5-20 Sewer system, St. John, Kan.	5-12
5-20*Sewers, Hackensack, N. J.	5- 5
5-20 Sewer, Cedar Falls, Iowa	5-12
5-21*Sewer, St. Louis, Mo.	4-28
5-23 Sewers, Aberdeen, S. Dak.	5- 5
5-23 Sewer, Brush, Colo.	5-12
5-23 Sewers, Wash., D. C.	5-12
5-24*Sewers, Philadelphia, Pa.	5-12
5-24 Sewer, Cleveland Heights, Ohio.	4-28
5-25 Sewers, Searcy, Ark.	5-12
5-25*Sewers, Baltimore, Md.	5-12
5-26*Sewers, etc., No. Andover, Mass.	5-12
5-27 Sewer, Seattle, Wash.	5-12
5-27 Sewers, Youngstown, Ohio	5-12
5-31*Sewer, St. Louis, Mo.	4-28
6- 1 Sewers, Amsterdam, N. Y.	5-12
6- 1 Sewer system, Fort Wingate, N. Mex.	5-12
6- 3 Sewer, Appleton, Wis.	5-12
6- 6*Sewers, Plainfield, N. J.	5-12
6- 7 Sewer, St. Louis, Mo.	5-12
6- 8 Sewers, Princeton, W. Va.	5- 5
6-14 Sewer, St. Louis, Mo.	5-12

Streets and Roads.

5-13 Street impvt., St. Louis, Mo.	4-28
5-13 Paving, Centerville, Iowa	5-12
5-14 Paving, Cleveland, Ohio	5- 5
5-14 Paving, Stockton, Cal.	5- 5
5-15 Roads, Plymouth, Ind.	4-28
5-16 Paving, Blaine, Wash.	4-28
5-16*Street impvt., Westfield, N. J.	4-21
5-16 Road, Cape May C. H., N. J.	5-12
5-16 Paving, Springfield, Ohio	5-12
5-16 Paving, Oklahoma City, Okla.	5-12
5-17 Paving, sidewalks, Toronto, Ont.	5-12
5-17 Boulevard, Niagara Falls, Ont.	5-12
5-17 Roads, Passaic, N. J.	5-12
5-17 Road, Agricultural College, Miss.	5-12
5-17 Paving, Paterson, N. J.	4-28
5-17 Paving, Olean, N. Y.	5- 5
5-17 Macadam, etc., Spokane, Wash.	5- 5
5-18*Stone road, Elizabeth, N. J.	5- 5
5-18 Paving, New York	5- 5
5-18 Paving, Baltimore, Md.	5-12
5-18 Roads, Fredericksburg, Va.	5-12
5-19*Paving, Winnipeg, Man.	5-12
5-19 Gravel, New York	5-12
5-19 Roads, Baltimore, Md.	5-12
5-19 Macadam, Fairfax, Va.	5-12
5-20 Road, Concord, N. H.	5-12
5-20 Street impv't, St. Louis, Mo.	5-12
5-20 Road, Cincinnati, Ohio	5- 5
5-20 Roads, Concord, N. H.	5- 5
5-23 Paving, Wash., D. C.	5- 5
5-23 Roads, Indiana	4-21
5-23 Stone road, Jeffersonville, Ind.	4-14
5-24*Road, Rockport, Me.	5- 5
5-24 Paving, Manhattan, Kan.	5-12
5-24 Road, Augusta, Me.	5-12
5-24 Road, Wilmington, Del.	5-12
5-25 Road, Beaver, Pa.	5-12
5-25 Paving, Bethany, Mo.	5-12
5-25 Roads, etc., Columbus, Ohio	4-28
5-25 Paving, New York	5- 5
5-26*Macadam, Somerville, N. J.	5-12
5-27*Roads, Albany, N. Y.	5-12
5-27 Sidewalks, Valparaiso, Ind.	5-12
5-27 Gravel road, Wabash, Ind.	5-12
5-27 Sidewalks, Grand Rapids, Mich.	5- 5
5-28*Paving, Boise, Idaho	4-28
5-28*Road, Montvale, N. J.	5- 5
5-31*Roads, etc., Ft. Hancock, N. J.	5-12
5-31 Roads, Pittsburg, Pa.	5-12
6- 1 Roads, etc., Fort Screven, Ga.	5-12
6- 6 Gravel road, Williamsport, Ind.	5-12
6- 6 Stone road, Vernon, Ind.	5-12
6- 6 Gravel roads, Tipton, Ind.	5-12
6- 6 Gravel road, Crawfordsville, Ind.	5-12
6- 7 Paving, Billings, Mont.	5-12
6- 7*Paving, Jackson, Miss.	5-12
6- 7 Gravel road, Bloomfield, Ind.	5-12
6- 7 Gravel road, Williamsport, Ind.	5-12
6- 8 Paving, Princeton, W. Va.	5-12
6- 8 Gravel roads, Peru, Ind.	5-12
6- 9 Road, Logansport, Ind.	5-12

Miscellaneous.

5-15 Watering carts, etc. (Garbage) Boston, Mass.	3-24
5-16*Diversion channel, East St. Louis, Ill.	4-14
5-16 Supplies, Dover, N. J.	4-21
5-16*Drainage, Colville, Wash.	4-28
5-16 Repairing scows, New York	5- 5
5-16 Fire engines, Wash., D. C.	5- 5
5-16 Pontoons, etc., New York City	5-12
5-16 Railway supplies, Panama	5-12
5-17 Stone, etc., Memphis, Tenn.	5- 5
5-18*Ditches, St. Paul, Minn.	4-28
5-18*Maneuver boat, Cincinnati, Ohio	4-28
5-18*Incinerator (Garbage), Aberdeen, Wash.	4-28
5-18*Telephone lines, Porto Rico	4-28
5-20 Culverts, Cincinnati, Ohio	4-28
5-20*Sheds, New Orleans, La.	5- 5
5-20 Removing dead animals (garbage), St. Louis, Mo.	5-12
5-21 Drainage ditches, Santa Ana, Cal.	5-12
5-21 Wreck removal, Plymouth, Mass.	4-28
5-23 Castings, cement, pipe, etc., Wash., D. C.	5- 5
5-23*Canal, etc., Porto Rico	5-12
5-23*Canal, etc., Porto Rico	5-12
5-24 Dredging, Wilmington, Del.	4-28
5-24 Barge canal, Albany, N. Y.	4-28
5-25 Crematory (garbage), Columbus Barracks, Ohio	5- 5
5-25 Rock, New Orleans, La.	5-12
5-25 R. R. track scale, N. Chicago, Ill.	5-12
5-30 Elec. Ry. grading, Altoona, Pa.	5-12
5-31 Waste refuse (garbage), Cleveland Ohio	5-12
5-31*Garbage plant (Garbage), Vancouver, B. C.	4-21
5-31 Destructor plant (garbage), Vancouver, B. C.	4-28
6- 3 Pier work, Pentwater, Mich.	5-12
6- 4 Steel tanks, Wash., D. C.	5- 5
6- 6 Anchors, Fort Totten, N. Y.	5- 5
6- 9 Ditch, Council Bluffs, Iowa	5- 5
6-15*Drainage canals, Tallahassee, Fla.	5- 5
6-15*Lock gates, Panama	4-21
6-15 Drain, Clarion, Iowa	5-12
6-17*Dredging equipment, Philadelphia, Pa	4-28
6-27*Ladder dredge, Panama	5- 5
7-25*Dams and canal, Porto Rico	5-12

Examinations.

5-18 Library Asst., Wash., D. C.	3-24
5-28 Highway Inspector, Albany, N. Y.	5-12
5-28 Junior Assistant, Albany, N. Y.	5-12
5-28 Axeman, Albany, N. Y.	5-12
6- 1 Bacteriological Chemist, Philadelphia, Pa.	5- 5
6- 1 Wireless Engr., Philippines	5- 5
6- 1 Wireless Telegraph Operator, Philippines	5- 5
6- 8 Inorganic Chemist, Philippines	5-12
6- 8 Bacteriologist and Pathologist, Philippines	5-12
6-15 Surveyor, Philippines	5-12
7-13 Examiner, Klamath Falls, Ore.	5-12

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

5-14 Storehouse, Vallejo, Cal. (S.)	4- 7
5-14 Bridge, North Chicago, Ill. (S.)	4- 7
5-16*Diversion channel, East St. Louis, Ill. (S.)	4-28
5-21 Rebuilding, Portsmouth, N. H. (S.)	4-14
5-21 Power plant, Washington, D. C. (S.)	4-21
6- 4 Steel tanks, Washington, D. C. (S.)	5- 5
6- 4 Heating systems, etc., Boston, Mass. (S)	5-12
6-11 Substation, Charleston, S. C. (S.)	5-12
6-11 Nurses' quarters, New York (S.)	5-12
6-15*Drainage canals, Tallahassee, Fla. (P. & S.)	5- 5
6-28*Bridge, Winnipeg, Man. (P. & S.)	5- 5

INDUSTRIAL NOTES.

THE NATIONAL METER CO. announces the removal of its office to 1223 Wabash Ave., Chicago.

A COMPLETE PORTABLE FOUNDRY has been installed on the bellship "Dixie" by the S. Obermaker Co., Cincinnati.

A. DINIACO & BRO. have removed from 10 Diamond Sq., Pittsburg, Pa., to their new offices, Room 311 Berger Bldg., Pittsburg, Pa.

IDLE CARS reported by the American Railway Association April 27 numbered 96,319, an increase during the fortnight of 319 or 24.5%. On April 28, 1909, they numbered 281,831.

ANNOUNCEMENT has been made by the Standard Scale & Supply Co., of Pittsburg, that its Chicago office has moved to larger quarters at 1345 Wabash Ave.

THE ILLINOIS BRICK CO., 138 Washington St., Chicago, has purchased, it is reported, the brick plant of the Wisconsin Lime & Cement Co., Dalton, Ill.

MR. F. L. O. WADSWORTH, consulting engineer and patent expert, announces the removal of his general offices from Sewickley, Pa., to the Oliver Bldg., Pittsburg, Pa. His laboratories will continue to be maintained in Sewickley.

THE FIRE LOSS in the United States and Canada during the first four months of 1910, was, according to "The Journal of Commerce and Commercial Bulletin," $67,222,100, compared with $72,006,700 in the same months last year, and $90,804,000 in 1908.

THE ELECTRICAL EQUIPMENT for the new Whitehall Bldg., New York City, will include three 300-KW., 220-volt D. C. generators, and one 150-KW. generator. The orders for these have recently been placed with the Garwood Electric Co., Garwood, N. J.

THE CALUMET CONTRACTING CO. has recently been incorporated in Gary, Ind., to do a general contracting business. The work will include the building of railways, highways, streets, as well as the construction of buildings. Among the directors are Geo. Mayer, Wm. Fedder and A. H. Feurst.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 204.

CAST IRON WATER PIPING, VALVES, ETC.

Clarksburg, W. Va.

Sealed proposals for furnishing all labor and materials for the furnishing and laying of cast-iron water pipe, valves and appurtenances in the city of Clarksburg, W. Va., and vicinity, will be received by the Water-Works and Sewerage Board of said city at the office of the Secretary, Scott G. Highland, until 12 o'clock, noon, June 15, 1910, in accordance with the plans and specifications on file at the office of the Board and at the office of Hering & Fuller, Engineers, 170 Broadway, New York City, from whom copies may be obtained.

The work includes the furnishing and laying of approximately:

10,000 feet of 16-inch, 900 feet of 12-inch, 1,000 feet of 10-inch, 10,000 feet of 8-inch, 6,000 feet of 6-inch and 500 feet of 4-inch cast-iron water mains; 50 gate valves from 4 to 16 inches in size, with valve boxes, and 35 fire hydrants.

Each proposal shall be accompanied by a certified check for $2,000. A bond in the sum of 25 per cent. of the amount of the contract will be required of the successful bidder.

Copies of the plans and specifications may be obtained at the office of the Secretary and of the Engineers on and after May 16, 1910, upon depositing $5, which will be refunded upon the return of the plans and specifications in good condition.

The right is reserved to reject any or all bids.

W. H. LEWIS,
President.
SCOTT G. HIGHLAND,
Secretary.

HERING & FULLER,
Engineers.

SEWERS.

NOTICE TO CONTRACTORS.

North Andover, Mass.

Sealed proposals for constructing about 6,300 linear feet of pipe sewer will be received by the Board of Public Works of North Andover, Massachusetts, at their office in North Andover, until 8 o'clock P. M. of Thursday, May 26, 1910. All proposals must be made on blank forms furnished by the Engineer, and must be accompanied by a certified check made payable to the Town of North Andover for the sum of One Thousand Dollars ($1,000.00). Pipe, brick and castings will be furnished by the Town. Plans and profiles may be seen and form of proposal and specifications obtained at the office of the Engineer, No. 62 Devonshire Street, Boston, Massachusetts. A deposit of Two Dollars ($2.00) will be required for each copy of proposal, specifications, etc. The Board reserves the right to reject any or all bids.

NATHANIEL STEVENS, Chairman.
ERNEST W. BOWDITCH, Engineer.

SANITARY SEWERS.

Plainfield, N. J.

Sealed proposals will be received by the Common Council of the City of Plainfield, N. J., on Monday, June 6th, 1910, at 8 P. M., for the construction of sanitary sewers, including:

4,210 feet 8-inch vitrified pipe sewer, 6 to 10 feet deep.
11 Manholes.
2 Flush Manholes.
150 Branches.
440 feet 4-inch vitrified pipe house connections.

Certified check for $200 to accompany each bid, and the amount of bond required will be $4,000.

Duplicate plans may be examined, and forms of proposals, specifications, contract and bond may be obtained at the office of the Engineer, 151 North Avenue, Plainfield, N. J.

JAMES MacMURRAY,
City Clerk.

ANDREW J. GAVETT,
Engineer in Charge.
Dated May 2, 1910.

SEWERS.

OFFICE OF THE SEWERAGE COMMISSION OF THE CITY OF BALTIMORE.

Sealed proposals, indorsed, "Bids for constructing lateral sewers in District 19-A, Sanitary Contract No. 52, addressed to the Board of Awards of Baltimore City, will be received at the office of Mr. J. Sewell Thomas, City Register, City Hall, Baltimore, Md., until 11 A. M., Wednesday, May 25th, 1910, for constructing sanitary lateral sewers in District 19-A, and certain sewers in Districts 19-B, 21 and 35, as shown on plans on file in the office of Mr. Calvin W. Hendrick, Chief Engineer of the Sewerage Commission.

Specifications and plans can be obtained upon application at the office of the Sewerage Commission, Room 904 American Building, Baltimore, Md., on and after Monday, May 9th, 1910. A charge of $5.00 will be made for each specification and blue print, which charge will be refunded upon the return, on or before May 25th, 1910, of the unused specifications and plans in good condition, or upon the return of the General Specifications and plans in case a bid is submitted.

A certified check of the bidder, for the sum of Three Thousand Five Hundred Dollars ($3,500), drawn on a Clearing-House Bank and made payable to the order of the Mayor and City Council of Baltimore will be required to be deposited with each bid.

APPROXIMATE QUANTITIES.

25,500 Lin. ft. vitrified pipe sewer, 8-inch diam.
2,500 lin. ft. vitrified pipe sewer, 10-inch diam.
1,550 lin. ft. vitrified pipe sewer, 15-inch diam.
400 lin. ft. vitrified pipe sewer, 22-inch diam.
1,900 lin. ft. vitrified pipe sewer, 24-inch diam.
830 lin. ft. brick and concrete sewer, 27-inch, diam.
16,000 lin. ft. 6-inch house connections.

The successful bidder on this contract will be required to give bond and comply with the City Charter respecting contracts.

The Board of Awards reserves the right to reject any and all bids.

By order of the Sewerage Commission.

PETER LEARY, JR.,
Chairman.

HARRY W. RODGERS,
Secretary.

Approved:
J. BARRY MAHOOL,
President, Board of Awards.

SEWER.

NOTICE TO DEALERS IN MATERIALS.

North Andover, Mass.

Sealed proposals for furnishing sewer pipe, brick, cement and manhole castings will be received by the Board of Public Works of North Andover, Massachusetts, at their office in North Andover, until 8 o'clock P. M. of Thursday, May 26, 1910. All proposals must be made on blank forms furnished by the Engineer, and must be accompanied by a certified check made payable to the Town of North Andover, for:

40,000 Brick	$50.00
500 bbls. Portland cement	100.00
20 sets Manhole castings	50.00
9,600 lin. ft. of 5, 6, 8 and 18" Vitrified sewer pipe	200.00

Plans and profiles may be seen and form of proposal and specifications obtained at the office of the Engineer, No. 62 Devonshire Street, Boston, Massachusetts. The Board reserves the right to reject any or all bids.

NATHANIEL STEVENS, Chairman.
ERNEST W. BOWDITCH, Engineer.

FORT MEADE, S. D., May 7th, 1910.—Sealed proposals, in triplicate, will be received here until 10 A. M., Mountain Time, May 28th, 1910, for the construction of four (4) double buildings for Stable Guard and Shops, including electric wiring and fixtures. Information furnished upon application to this office. A deposit of $5.00 to insure return, is required before plans are sent on individual application. Envelopes containing proposals should be endorsed "Proposals for Stable Guard and Shops" and addressed to the Constructing Quartermaster, Fort Meade, S. D.

ROADS.

Belvidere, N. J.

Sealed bids will be received by a committee of the Board of Chosen Freeholders of the County of Warren, at the Court House, in Belvidere, N. J., on Saturday, May 28, 1910, at two o'clock in the afternoon—not before and not after—for macadamizing the public road beginning in Buttzville, five hundred feet west of the D., L. & W. Railroad crossing east of Buttzville, and extending to the town line of Belvidere—a distance of 19,418 feet, or 3.678 miles.

Plans, profiles, cross sections and specifications can be seen at the office of the American House, Belvidere, N. J.; office of the hotel in Buttzville, or at the residence of J. R. Thatcher, Director, Washington, N. J. Each bidder must accompany his bid with a certified check for the sum of One Thousand ($1,000.00) Dollars, payable to the order of J. R. Thatcher, Director of the Board of Chosen Freeholders, as a guarantee that, if the contract shall be awarded to him, he will, when required by said Board, execute an agreement in writing to perform the work according to the specifications; failing to do so, he shall forfeit said check, the sum to be considered as liquidated damages.

The Board of Chosen Freeholders reserves the right to reject any or all bids.

J. R. THATCHER,
Director.

Washington, N. J., May 10, 1910.

MECHANICAL FILTER PLANT, PUMPS, BOILERS, RESERVOIR AND APPURTENANCES.

Clarksburg, W. Va.

Sealed proposals for furnishing all labor and materials for the construction of a mechanical filter plant with appurtenances in the city of Clarksburg, W. Va., and vicinity, will be received by the Water-Works and Sewerage Board of said city at the office of the Secretary, Scott G. Highland, until 12 o'clock, noon, June 15, 1910, in accordance with the plans and specifications on file at the office of the Board and at the office of Hering & Fuller, Engineers, 170 Broadway, New York City, from whom copies may be obtained.

The work includes a mechanical filter plant of 3,000,000 gallons capacity, complete with a 200,000-gallon clear-water basin and 600,000-gallon coagulating basin built of reinforced concrete, with a brick and steel filter building, two 3,000,000-gallon low-lift centrifugal pumps, driven by high-speed engines, a 3,000,000-gallon multi-stage turbine high-lift pump driven by a steam turbine, two 200-HP. water-tube boilers, a new brick and steel boiler house, and a 1,000,000-gallon reinforced concrete reservoir, together with all steam and water piping connections and a new 16-inch cast-iron suction line.

Bids will be received upon the whole work and upon the pumps and boilers separately. Each proposal for the whole work shall be accompanied by a certified check for $4,000, and each proposal for pumps and boilers shall be accompanied by a certified check for $500. A bond in the sum of 25 per cent. of the amount of the contract will be required of the successful bidder.

Copies of the plans and specifications may be obtained at the office of the Secretary and of the Engineers on and after May 14, 1910, upon depositing $5, which will be refunded upon the return of the plans and specifications in good condition.

The right is reserved to reject any or all bids.

W. H. LEWIS,
President.
SCOTT G. HIGHLAND,
Secretary.

HERING & FULLER,
Engineers.

OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, D. C., May 9, 1910.—Sealed proposals will be received at this office until 2 P. M., May 23rd, 1910, for constructing sewers in the District of Columbia. Forms of proposals, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. CUNO H. RUDOLPH, JOHN A. JOHNSTON, WM. V. JUDSON, Commissioners, D. C.

CAST-IRON PIPE.

Newark, N. J., May 5, 1910.

ADVERTISEMENT TO CONTRACTORS—Office of the Board of Street and Water Commissioners of the City of Newark, N. J. Department of Water, City Hall.

Sealed proposals will be received at this office from 3:15 to 3:30 P. M., May 19th, 1910, and opened at the last-named hour at a public meeting of the Board to be held at said time and place for:

48 short tons of 4" cast iron water pipe.
553 short tons of 6" cast iron water pipe.
85 short tons of 8" cast iron water pipe.
38 short tons of 10" cast iron water pipe.
24 short tons of 12" cast iron water pipe.
200,000 lbs. of ordinary special castings.
15 short tons of 6" High Pressure cast iron water pipe.
37 short tons of 8" High Pressure cast iron water pipe.
431 short tons of 16" High Pressure cast iron water pipe.

NOTE:—The 16" High Pressure pipe to have wrought iron band shrunk on hub.

All f. o. b. cars Newark, N. J., according to specifications and drawings which will be furnished upon application to the engineer and superintendent of the Department of Water.

Proposals must be accompanied by the consent in writing of two sureties (residents of Essex County, N. J.), or surety company authorized to do business in New Jersey who quality as to their responsibility in the amount of the proposal, and agree to become sureties for the faithful performance of the contract, if awarded.

The Board reserves the right to award separate contracts for either regular cast iron pipe and ordinary special castings, or High Pressure cast iron pipe, if it deems the same to be advisable for the best interests of the city.

Each proposal must be enclosed in a sealed envelope, properly endorsed "Proposal for Cast Iron Pipe and Special Castings," with the name of the bidder and directed to the Board of Street and Water Commissioners of the City of Newark, N. J.

The Board reserves the right to reject any or all bids.

By direction of the Board of Street and Water Commissioners.

MORRIS R. SHERRERD,
Chief Engineer.

LAYING WATER PIPES.

COMMONWEALTH OF MASSACHUSETTS.—Metropolitan Water and Sewerage Board. Laying Water Pipes.—Sealed proposals will be received at the office of the Metropolitan Water and Sewerage Board, 1 Ashburton Place, Boston, Mass., until 2.30 o'clock P. M. of Wednesday, May 25, 1910, for laying 8,830 feet of 60-inch cast-iron water pipe in Newton, Mass. Plans for the work may be seen and pamphlets containing further information for bidders, forms of proposal, contract and specifications may be obtained at the office of the Chief Engineer, 1 Ashburton Place. The printed forms must be used in making proposals. The Board reserves the right to reject any or all bids or to accept the proposal deemed best for the Commonwealth. HENRY H. SPRAGUE, Chairman; HENRY P. WALCOTT, JAMES A. BAILEY, JR., Metropolitan Water and Sewerage Board. DEXTER BRACKETT, Chief Engineer of Water Works. WILLIAM N. DAVENPORT, Secretary. Boston, May 10, 1910.

SCHOOL.

Long Branch, N. J.

Estimates will be taken on plans and specifications of Henry C. Pelton, Architect, of 10 East 33d Street, New York City, and Chester A. Slocum, Heating and Electrical Engineer, of Long Branch, N. J., on a New High School Building to be erected by the Board of Education in Long Branch, N. J. Plans and specifications will be found at the offices of the Architect and Engineer, as well as the office of Mr. A. T. Woolley, Chairman of the Building Committee of the Board of Education at Long Branch, N. J., on and after May 6th, 1910.

Sealed bids to be delivered at the office of Mr. A. T. Wooley, the Chairman

of the Building Committee of the Board of Education in Long Branch, N. J., on or before 10 A. M., May 25th, 1910. Bids will be opened at the regular meeting of the Board of Education at 2 P. M., May 26th, 1910. The Board reserves the right to reject any and all bids.

A bond will be required from the successful bidder, amounting to 20% of the amount of the bid. Bids must be accompanied with certified cheque for 5% of the amount of the bid.

SEWERS.

CITY OF REGINA,
Province of Saskatchewan.

Sealed tenders will be received up to noon, Monday, May 30, 1910, addressed to the undersigned, for each of the following contracts for the construction of Storm Water and Sanitary Trunk Sewers and Disposal Works:

Contract A.—The construction of sewers as follows:
10,761 ft. — 30 inch
3,248 ft. — 48 inch
2,369 ft. — 5 ft. 6 inches
8,392 ft. — 6 ft.

Contract B.—The supply of 11,500 bbls. of Portland cement for the above sewers.

Contract C.—The supply of reinforcement for sewers.

Contract D.—The supply of sewer pipe for branches from the sewers.

Contract E.—The supply of manhole covers and other special castings.

Contract F.—The supply of 700 cords of Field Boulders for the Percolating Filters.

Contract G.—The supply of 3,600 bbls. of Portland Cement for the Disposal Works.

Tenders for A. and F. must be accompanied by accepted bank cheques for $10,000 and $2,500, respectively, or other satisfactory deposits for the above amounts.

The deposits of unsuccessful tenderers will be returned as soon as the contracts are signed.

The right to reject any or all tenders or to waive irregularities therein is to be at the discretion of the City Authorities.

Plans, specifications, forms of tender and all information may be obtained on application to the City Engineer's office, Regina, Saskatchewan.

A. E. CHIVERS,
City Clerk.

A. J. McPHERSON, C. E.,
Consulting Engineer.
Regina, Sask., May 7th, 1910.

CONCRETE CULVERT.

Fulton, N. Y.

The Board of Public Works of Fulton, N. Y., proposes to construct a reinforced concrete Culvert over Outlet Creek, on Hannibal Street.

Sealed proposals will be received by the Board of Public Works at the office of the Board, at 8 P. M. on the 23rd of May, 1910, for a design, specification and construction of said culvert.

CONDITION OF DESIGN.

The span must have a clear opening of at least 70 square feet.

Crown of arch must be at least 7 feet above bed of creek.

Foundation at least 2½ feet below bed of creek.

Head walls at least 15 feet in length, measured from center of arch.

Length of arch, 66 feet.

Designed so as to carry a load of 20 tons.

Height of road above bed of creek, about 22 feet.

A certified check for $100.00, payable to the city chamberlain, must accompany each proposal.

J. A. FOSTER,
President Board of Public Works,
Fulton, N. Y.

EARTHWORK.—Department of the Interior, United States Reclamation Service, Washington, D. C., May 9, 1910.—Sealed proposals will be received at the office of the U. S. Reclamation Service, Shaw Building, Boise, Idaho, until 10 o'clock A. M., July 8, 1910, for the enlargement of the Main South Side Canal, near Boise, Idaho, involving the excavation of about 342,000 cubic yards of material. For particulars address the U. S. Reclamation Service, Washington, D. C., or Boise, Idaho. R. A. BALLINGER, Secretary.

CANAL AND CULVERTS.

DEPARTMENT OF THE INTERIOR.

OFFICE OF PORTO RICO IRRIGATION SERVICE.

Guayama, Porto Rico, April 20, 1910.

Sealed proposals will be received at this office until 2 o'clock p. m., May 23, 1910, for the construction of about 7½ miles of main canal with appurtenant culverts, including unfinished work on schedules 3, 5 and 6 of Specifications No. 1, dated April 28, 1909. The estimated cost is about $40,000. Plans, specifications and proposal blanks may be obtained from this office, or from the Commissioner of the Interior, San Juan, Porto Rico.

A deposit of $1.00 is required for the plans, and will be refunded on their return before May 24, 1910. The right is reserved to reject any and all bids.

B. M. HALL,
Chief Engineer,
Porto Rico Irrigation Service.
By order of JOHN A. WILSON,
Commissioner of the Interior of
Porto Rico.

DAMS AND CANAL.

OFFICE OF IRRIGATION SERVICE.
Guayama, Porto Rico, April 25, 1910.

Sealed proposals will be received at this office until 2 o'clock p. m., July 25, 1910, for the construction of the Carite Dam, 150,000 cubic meters of earth and loose rock; the Toro Negro Dam, 15,000 cubic meters of earth and loose rock; and the Doña Juana Canal, 1⅛ miles in length. The estimated total cost is about $160,000. After May 31, plans and specifications may be obtained from this office; or from the office of the Commissioner of the Interior, San Juan, Porto Rico; or from the Bureau of Insular Affairs, War Department, Washington, D. C. A deposit of one dollar is required for the plans and will be refunded if they are returned before the date for opening bids. The right is reserved to reject any and all bids.

B. M. HALL,
Chief Engineer,
Porto Rico Irrigation Service.
By order of JOHN A. WILSON,
Commissioner of the Interior,
for Porto Rico.

STORAGE RESERVOIR DAM.

Waterbury, Conn.

Sealed proposals for the construction of a Storage Reservoir Dam will be received by the Board of Public Works of the City of Waterbury until 8 o'clock P. M., June 7th, 1910.

Proposals must be made on forms furnished by the Board, and must be accompanied by a certified check of 5% of the amount of the proposal.

The Board reserves the right to reject any or all bids.

Following is the Engineer's approximate estimate of some of the principal quantities:

4.	Concrete m's'nry, 1:3:6	25,600 cu. yds.
5.	Concrete m's'nry, 1:3:5	5,000 cu. yds.
6.	Concrete blocks.....	2,960 cu. yds.
7.	Rolled embankment...	525,000 cu. yds.
8.	Crushed stone.....	5,900 cu. yds.
10.	Paving	8,900 cu. yds.
11.	Loaming on Dam.....	6,300 cu. yds.
12.	Loaming adjacent areas	5,000 cu. yds.
14.	Sodding	18,840 sq. yds.
17.	Drain Gate House complete, exclusive of foundation.	
18.	Service Gate House complete.	

Office of the Board of Public Works, City Hall Annex, Leavenworth Street, Waterbury, Conn.

R. A. CAIRNS,
City Engineer.

CONSTRUCTION OF ROADS AND WALKS.—Fort Hancock, N. J., May 10, 1910.—Sealed proposals for construction of roads and walks at Fort Hancock, N. J., will be received at this office until 12 M., May 31, 1910, and then opened. Plans and specifications can be seen at the office of Chief Quartermaster, Department of East, Governor's Island, N. Y. City, or at this office. Deposit of certified check for $10.00 required as guaranty, return of plans and specifications. U. S. reserves right to reject any or all proposals. Envelopes containing proposals should be indorsed "Proposals for roads and walks," addressed C. J. GOODIER, Constructing Quartermaster.

HEATING AND VENTILATING PLANTS.

Birmingham, Ala.

Sealed proposals will be received at the office of the Board of Education of Birmingham, Ala., until noon, June 1, 1910, for furnishing and installing three Steam Heated Mechanical Blast Heating and Ventilating Plants in the Public Schools of the City of Birmingham, in accordance with the plans and specifications of the undersigned.

Proposals shall be made on the three plants in toto. A certified check for $2,000, payable to the Board of Education, shall accompany each proposal as an evidence of good faith. Proposals shall be made on blank forms which may be obtained from the Secretary of the Board of Education.

Plans and specifications may be obtained from the undersigned by a deposit of a certified check for $25 to be refunded when the plans and specifications are returned.

The successful bidder will be required to make bond for one-half the amount of his contract, and to comply with the City requirements respecting contracts.

The Board of Education reserves the right to accept or reject any and all proposals.

MARTIN J. LIDE,
Consulting Engineer for
Board of Education.

SEWER SYSTEM.

Philadelphia, Pa.

Sealed proposals will be received by R. E. Smith, Secy. of Sewer Building Committee, until 1 P. M., May 24th, 1910, for the furnishing of all materials and laying complete about eight and one-half miles of sewers, varying in size from six to twenty-four inches in diameter, together with all manholes, lampholes, flush tanks, etc., also a Sewage Disposal Plant consisting of settling tanks, sprinkling filters and sedimentation tank.

Specifications, instructions to bidders and blank forms of bidding sheets may be obtained and plans and profiles may be seen at the office of R. E. Smith, Secy. of Sewer Building Committee, or at the office of Chas. E. Collins, Consulting Engineer, Drexel Building, Philadelphia, Pa.

All proposals shall be made on the blank forms furnished by the city for this purpose and shall be accompanied by a certified check upon a national bank and drawn to the order of F. A. Nance, Pres. Sewer Building Committee, for the sum of Five Hundred Dollars ($500.00).

The Sewer Building Committee reserves the right to reject any or all bids.

F. A. NANCE,
Pres. of Sewer Building Committee.
R. E. SMITH, Secretary.

PAVING.

Jackson, Miss.

Sealed bids will be received by the Mayor and Board of Aldermen of Jackson, Miss., at the City Hall, until 3:00 P. M., Tuesday, June 7, 1910, for the construction of approximately 39,000 square yards of paving; also 10,000 lineal feet of curb.

Plans are on file with and specifications may be obtained from B. H. Klyce, City Engineer, Jackson, Miss.

The city reserves the right to reject any and all bids and to accept any bid.

B. H. KLYCE,
City Engineer.

OFFICE OF THE CONSTRUCTING QUARTERMASTER, Cheyenne, Wyoming, May 3, 1910.—Sealed proposals, in triplicate, will be receied at this office until 9.30 A. M., Mountain Time, Monday, May 23, 1910, at which time they will be opened in public, for the construction, plumbing, wiring for electric motors and lights, electric fixtures, furnishing and installation of laundry machinery and equipment, boiler, feed pump, etc., for one (1) Laundry, Plans No. 234-B, Fort D. A. Russell, Wyoming. Plans and specifications for the inspection of bidders are on file in this office, also the offices of the Chief Quartermaster, Department of the Lakes, Chicago, Illinois, Chief Quartermaster, Department of the Missouri, Omaha, Nebraska; Chief Quartermaster, Department of the Colorado, Denver, Colorado, and the Secretary of the Builders' Exchange, St. Paul, Minnesota. Proposal blanks and General Instructions to Bidders may be had upon application to this office. The Government reserves the right to reject or accept any or all bids or any part thereof. Envelopes containing proposals should be indorsed "Proposals for Laundry, Fort D. A. Russell, Wyoming, to be opened May 23, 1910," and addressed to V. K. Hart, Captain 15th Infantry, Acting Quartermaster, United States Army, in charge of Construction, Room 3, Keefe Hall, Cheyenne, Wyoming.

CONSTRUCTING QUARTERMASTER'S OFFICE, Madison Barracks, Sackets Harbor, N. Y., May 9, 1910.—Sealed proposals, in triplicate, will be received at this office until 2.00 p. m., June 9, 1910, and then opened, for remodeling and replacing old plumbing in barracks for 4 companies at this post. Information furnished on application. Deposit of $100, to guarantee their return, required for furnishing plans and specifications. Plans and specifications can also be seen at Office of Chief Quartermaster, Dept. of the East, Governor's Island, N. Y. United States reserves right to reject any or all bids. Envelopes containing proposals should be marked "Proposals for remodeling plumbing, &c, to be opened June 9, 1910," and addressed to the Constructing Quartermaster, Madison Barracks, Sackets Harbor, N. Y.

PROPOSALS FOR CONSTRUCTING A BAND STAND, ROADS, DRAINS AND SEWER.—War Department, Office of the Constructing Quartermaster, New London, Conn., May 9th, 1910.—Sealed proposals for the construction of a band stand at Fort H. G. Wright, N. Y.; constructing approximately 2,900 linear feet of macadam road and approximately 2,500 linear feet of road drains at Fort Terry, N. Y., and relaying approximately 1,000 linear feet of sewer at Fort Mansfield, R. I., will be received at this office until 11.00 A. M., May 30th, 1910, and then opened. Envelopes containing proposals should be marked to show their contents and addressed CAPT. F. T. ARNOLD, Constructing Quartermaster, New London, Conn.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 7, 1910.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 13th day of June, 1910, and then opened, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. Post Office at Shamokin, Pa., in accordance with drawings and specifications, copies of which may be obtained from the Custodian of site at Shamokin, Pa., or at this office at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

TREASURY DEPARTMENT, OFFICE OF THE SUPERVISING ARCHITECT, Washington, D. C., May 4, 1910.—Sealed proposals will be received at this office until 3 p. m., on the 6th day of June, 1910, and then opened, for the renovation of the plumbing system at the United States Custom House and Post-Office, New Orleans, Louisiana, in accordance with drawings and specifications, copies of which may be had at this office, or at the office of the Custodian of the building, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Superivising Architect.

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